

final report
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The Contribution of Timber Resources to Economic
Growth and Stability in Northern California

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ECONOMIC GROWTH

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1. INTRODUCTION

1.1 Background and objectives

In the past several decades, the debate over the importance of timber resources to local and regional economies in the Western U.S. has become increasingly intense. Harvest levels on private lands have declined because of a marked reduction in merchantable inventory. Harvest levels on public lands have been lowered because of planning procedures, budgetary stringencies, requirements for higher degrees of environmental protection and a reduction in the area available for timber harvest because of wilderness "set-asides" and other withdrawals.

Those who advocate maintaining or increasing the level of timber harvest on public lands, particularly on the National Forests, argue that timber harvesting and processing is essential to the economic well-being of numerous communities and regions in the Western States. Those who advocate reducing the level of cut argue that many communities and regions are, in fact, no longer dependent on timber resources to any significant extent. The objective of this study is to examine the contribution of timber resources to economic well-being with specific reference to the major forested counties of Northern California. In particular, "contribution to economic well-being" is viewed in terms of the role that timber resources play in promoting regional economic growth and maintaining economic stability. A necessary prerequisite is therefore to examine and define the notions of regional economic growth and stability.

1.2 Nature of regional economic growth and stability

Economic growth is here defined as rising employment or rising real gross personal income in the region under study. If personal income data is used, it may be either on a per capita basis or as an aggregate total for the region as a whole. It is argued here that rising real per capita income is virtually synonymous with an increase in economic well-being. For an individual a rise in per capita income provides him or her with a choice as to what leisure activities to pursue, and what level of material comforts to seek. Some may argue that the rise in per capita income may be achieved in certain cases only through greater effort and sacrifice on the part of the recipient. But the fact that the individual chooses to accept a rise in income suggests strongly that there is a net benefit associated with it. Others may argue that an increase in per capita income may be accompanied by a change in income distribution which may represent a disadvantage to some individuals in society. It is unlikely however that the per capita income of these individuals will decrease. It may, in fact, increase to some extent because of the greater level of regional spending (both private and public) associated with the general income rise. Thus the argument reduces to the issue of whether a potential psychic disadvantage is or is not offset by a potential gain in material well-being.

The argument that a rise in aggregate (total) regional income is synonymous with a rise in economic well-being is less categorical. The residents of an undeveloped region may have a relatively high per capita income because they receive a high level of transfer payments (say in the form of retirement income), or because they possess productive capi-

tal assests or unusual skills. As economic development and growth occur, and the population increases, the influx of newcomers (at least theoretically) may be associated with a reduction in per capita income if they are less skilled or less well-endowed with capital assets than the initial residents. Can it therefore be argued that an increase in aggregate regional income could be associated with a decrease in economic well-being? The answer would be "yes" only if one chose to ignore the previous economic status of newcomers in their region of origin. In all probability, they have relocated to achieve a higher standard of living or to avoid a decrease in that standard. Thus it can be argued that an increase in aggregate regional income represents a net benefit to society-at-large although allowance must be made for potential reductions in aggregate income of those regions that provide labor and capital needed by the region experiencing economic growth.

Economic stability similarly, has a dual character. Regions may experience either cyclical or secular economic instability or both. Conversely, their economies, as measured by the level of output or aggregate income, may be stable in either, or both, the short-term or the long-term.

Regional economies which are not diversified and are heavily dependent on natural resources such as timber or minerals tend to exhibit both secular and cyclical instability. The concern of this study is primarily with longer-term, secular stability but some consideration of short-term stability is necessary for analytical completeness. An argument, sometimes presented, is that the cyclical instability of timber-dependent economies is so great that efforts to promote secular stabil-

ity through governmental action or policies is fruitless. Analysis of this argument requires asking why owners and employees of timber-related businesses would choose to operate or work in the forest products sector rather than in some other, more stable sector. The appropriate answer appears to be that these owners and employees accepted the cyclical, short-term losses in exchange for the perceived benefits received in times of prosperity. This, however, does not mean that they would not suffer from a secular decline in the viability of the timber economy.

The argument could, of course, be made that long-term declines in timber availability are expected, employees and owners of capital assets should be willing to relocate to avoid future losses. In the case of owners of capital assets, relocation is perhaps possible if the capital assets have a short life or are mobile, such as logging equipment. Although, even in this case, one should recognize that logging equipment, practices and expertise may not be fully adaptable to new environments, and that because of a general decline in timber availability business opportunities may not be significantly better elsewhere. In addition, for owners, employees and their families, relocation may involve serious personal costs on top of the uncertainties associated with a move. Furthermore, there are broad social costs associated with relocation of significant part of the work force, even if comparable employment opportunities are available elsewhere. Relocation could perhaps involve to abandonment or underutilization of schools and other forms of social capital in the region of decline and require that new social capital be invested in the regions to which the work force migrates.

1.3 Use of county employment data

For purposes of this study a region is a county or group of counties in Northern California. Thus a county is the basic data unit of interest. Income series for major forested counties in California were assembled for earlier studies (Connaughton 1977; Connaughton and McKillop 1979) using U.S. Bureau of Economic Analysis Data (U.S. Department of Commerce 1977). These county income data were updated to 1980, but because they were not available specifically for the lumber and wood products sector, dependence was placed on employment data as a measure of economic growth and stability. The following section analyses lumber and wood products employment data provided by the California Employment Development Department (1982) and the U.S. Department of Commerce (1982). Fifteen of the counties studied were part of the U.S.D.A. Forest Service Northern California Planning Area. They were: Butte, Del Norte, El Dorado, Humboldt, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity and Yuba. Seven additional counties (Amador, Calaveras, Fresno, Madera, Placer, Sonoma and Tuolumne) although outside the Northern California Planning Area were also studied because they had a significant amount of timber-based employment. Furthermore, certain data series include Sutter county along with Yuba county.

2. TIMBER EMPLOYMENT IN NORTHERN CALIFORNIA

2.1 Employment trends

Table 1(A) through Table 1(O) and computer plots in Appendix A demonstrate employment trends in the fifteen selected Northern Califor-

nia counties for the period 1956 to 1980. Data in Table 1 show employment for each county in (a) lumber and wood products (SIC24), (b) all manufacturing and (c) all sectors combined. From this we note that Humboldt county leads in lumber and wood products employment followed by Mendocino, Shasta, and Siskiyou counties. Modoc, Sierra and Trinity counties have the lowest absolute levels of employment in lumber and wood products. They also show the lowest levels of employment in the manufacturing sector, and in all sectors combined. For example, total employment in 1973 was 906, 410, and 1230 persons respectively. It is not surprising, therefore, that lumber and wood products is a dominant sector in these counties. In 1973 it provided 12.0 percent of total employment and 75.2 percent of manufacturing employment in Modoc county. These figures for Sierra county were 60.5 percent and 100 percent respectively and; for Trinity county they were 56.7 and 100 percent. No other counties except Del Norte showed more than 50 percent of total employment occurring in the lumber and wood products sector between 1956 and 1979. For many counties, however, it was evident that lumber and wood products was an important component of all manufacturing activity. For example only for Butte, Nevada and Shasta did this sector represent less than 70 percent of manufacturing employment in 1973.

It should be noted that inter-county comparison may be misleading because of changing levels of employment over time in the various sectors under discussion. This makes it inadvisable to simply compare averages over the whole period of analyses. Appendix A, demonstrates employment trends on a county by county basis (using a logarithmic scale to accommodate the wide range in numerical magnitudes). For all counties except Sierra, total employment shows a general upward trend.

Lumber and wood products employment tends to show a downward trend for Del Norte, El Dorado, Humboldt, Mendocino, Sierra and Siskiyou. Butte, Modoc, Nevada and Yuba show general upward movement in lumber and wood products employment. Other counties show no clear trends in lumber and wood products employment.

Trends in the importance of lumber and wood products relative to the manufacturing sector and to the county-wide economy are also shown in Appendix A. In almost all cases there is a downward trend in lumber and wood products employment relative to total employment, reflecting, no doubt, growing diversification in county economies over time and an increase in size of the service (non-basic) sector. Only Yuba county showed an upward movement in lumber and wood products as a percent of total. This may have been due to the relocation of wood processing plants to this more centrally located county.

2.2 Unemployment rates in selected California counties

Table 2 shows unemployment rates in the 22 counties listed earlier together with rates for California as a whole. Although data are presented for 1970 through 1981 when available, it should be noted that data for 1970 through 1973 are not comparable with later years.

It will be noted that for almost every county the unemployment rate is substantially above the state average. Extremely high values, for example, occurred in 1975 for Del Norte county (20.0 percent), El Dorado (17.4), Humboldt (16.1), Lassen (20.0), Plumas (17.8), Shasta (10.3), and Tuolumne (18.6). Similarly high values occurred in 1981 for Del Norte (17.3), Plumas (17.3), Sierra (18.6) and Trinity (17.5). The only

counties with unemployment rates that are only slightly above the state average are Amador, Fresno and Madera; and Modoc county in recent years.

Data in Table 2 reveal the chronic nature of unemployment in several counties since the present series on unemployment rates began in 1974. Each year the unemployment rate has been 10 percent or greater in twelve cases: Calaveras, Del Norte, Humboldt, Lassen, Plumas, Shasta, Sierra, Siskiyou, Tehama, Trinity, Tuolumne and Yuba-Sutter). In the case of Butte, Lassen, Mendocino and Nevada it was less than 10 percent in only one or two years between 1974 and 1981.

Unemployment rates are plotted in Appendix B by alphabetical grouping of counties. California rates are shown for comparison. The figures show (a) the high rates in many counties relative to the state as a whole and (b) the high degree of instability in unemployment rates. Peaks in unemployment rates are clearly evident around the mid seventies followed by a decline in rates in the late seventies and then by a rise in recent years as industrial output has declined. The magnitude and rapidity of the change in reported rates has been striking in several cases: in a three year period the rate for Lassen fell from 20.0 percent to 8.1 percent; in Calaveras it dropped from 15.9 percent in 1974 to 10.0 in 1978; in Del Norte it dropped from 20.0 in 1975 to 12.4 in 1978; and in Tuolumne it dropped from 18.6 to 11.2 over a similar period.

2.3 Timber harvest and employment

As discussed earlier, a key element in assessing the potential impact of changes in forest management activity is the relationship between timber harvest and employment in the lumber and wood products

sector. Table 3 provides data on these items for the 1972-81 period together with the ratio of employment to timber production for the following 18 counties: Amador, Butte, Calaveras, Del Norte, El Dorado, Humboldt, Lassen, Mendocino, Modoc, Nevada, Plumas, Shasta, Siskiyou, Sonoma, Tehama, Trinity, Tuolumne, and Yuba. Information for other counties is not available at this time. Data for California as a whole is also provided. It should be noted that some discontinuity in the timber production data may have occurred in 1978 with a change in the source from California Department of Forestry surveys to yield tax reports of the State Board of Equalization.

As indicated earlier, Humboldt, Mendocino, Shasta and Siskiyou lead in terms of average lumber and wood products employment over the 1972-81 period. They also lead in terms of timber harvest, although the ranking between Shasta and Siskiyou is reversed. This implies that Shasta may be a larger net importer of logs than Siskiyou and thus able to provide more employment in wood processing.

Data on employment/production ratios (number of man-years per million board feet harvested) are of interest. As might be expected they vary widely from county to county, due undoubtedly to such things as inter-county log transfers, varying degrees of secondary processing such as mill work, differences in size and species of timber and variation in the character of milling capacity. Del Norte for instance shows an average of 6.11 man years per million board feet (log scale). The adjoining Humboldt county shows 8.99 man years per million board feet. Mendocino county shows a similar magnitude (7.65), but Sonoma because of log transfers and an abundance of secondary processing shows a remark-

able 54.3 man-years per million board feet. Yuba shows a similarly high number (57.0). Plumas county on the other hand shows only 4.76 man-years per million board feet harvested probably because of a low degree of remanufacture, and because of log shipments to the adjacent counties such as Yuba.

More useful estimates of employment per million board feet harvested are provided in Table 4 where counties are grouped into the following regions:

- (1) Del Norte, Humboldt, Trinity
- (2) Mendocino, Sonoma
- (3) Lassen, Modoc, Shasta, Siskiyou
- (4) Butte, Nevada, Plumas, Tehama, Yuba
- (5) Amador, Calaveras, El Dorado, Tuolumne

Less disparity is evident in regional averages than in county-by-county estimates although regions 2 and 4 show significantly higher levels of employment per million board feet of 11.2 and 12.6 respectively, as opposed to 7.01, 5.85 and 5.38 for regions (1), (3) and (5) respectively. These contrast with the level of 8.08 shown in Table 3 for California as a whole.

Appendix C shows trends in lumber and wood products employment, timber production (harvest) and employment per million board feet harvested between 1972 and 1981 for each county using a logarithmic scale to permit display of all three quantities on a common graph. Several characteristics are evident from this appendix. One is the general stability of employment relative to timber harvest. This is not totally

unexpected because the need for timber companies to retain a viable work force in anticipation of future increases in output. Some counties such as Del Norte, El Dorado, Mendocino, Siskiyou, Tehama and Trinity show comparatively stable levels of timber harvest but the remainder show significant fluctuations.

A second characteristic is the generally downward movement in timber harvest for a number of counties, such as Humboldt, Modoc, Nevada, Plumas, Shasta, and Sonoma. The third characteristic is change in magnitudes of employment per million board feet harvested. As would be expected from the relative instability of timber harvest relative to lumber and wood products, employment in some counties show year to year variation in this employment/output ratio, such as Amador, Butte, Calaveras, Nevada, Sonoma and Yuba. Many others show a significant degree of stability in this ratio such as Del Norte, El Dorado, Humboldt, Siskiyou, Tehama, Trinity and Tuolumne. As Table 4 indicates, year to year fluctuation is considerably modified when counties are grouped into regions.

3. FUTURE GROWTH AND STABILITY

The key to projecting levels of regional employment in lumber and wood products is assessment of the probable future levels of timber harvesting and wood processing. Work is proceeding on adapting the TREES model (Tedder et al., 1980) to California forest resource data. When complete, this model will provide estimates of harvest levels by region. Trends in employment per million board feet of timber harvest reported in section 2 will be linked to these estimated output levels to provide

forecasts of potential lumber and wood products employment in Northern California over the next several decades. Multiple runs of the TREES model will be used to assess potential impacts of alternative forest policies on local and regional income and employment.

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TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

A. BUTTE COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	1574	2796	11747	23.8	13.4	56.3
1959	1419	2615	11718	22.3	12.1	54.3
1962	1082	2314	13271	17.4	8.2	46.8
1964	956	2269	15159	15.0	6.3	42.1
1965	905	2179	16060	13.6	5.6	41.5
1966	823	1895	15699	12.1	5.2	43.4
1967	743	1967	16491	11.9	4.5	37.8
1968	839	1932	14796	13.1	5.7	43.4
1969	754	2128	15109	14.1	5.0	35.4
1970	777	2192	15645	14.0	5.0	35.4
1971	1063	2519	16256	15.5	6.5	42.2
1972	1394	2979	17832	16.7	7.8	46.8
1973	1644	3507	18878	18.6	8.7	46.9
1974	1320	3714	19346	19.2	6.8	35.5
1975	1213	3215	19624	16.4	6.2	37.7
1976	1365	3340	21015	15.9	6.5	40.9
1977	1464	3778	24024	15.7	6.1	38.8
1978	1584	4087	26872	15.2	5.9	38.8
1979	1520	4135	29547	14.0	5.1	36.8
1980	1580	4532	30668	14.8	5.2	34.9

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

B. DEL NORTE COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	2148	2202	3880	56.6	55.2	97.5
1959	2153	2239	3807	58.8	56.6	96.2
1962	1787	1853	3312	55.9	54.0	96.4
1964	1743	1800	3308	54.4	52.7	96.8
1965	1760	1865	3793	49.2	46.4	94.4
1966	1797	1881	3550	53.0	50.6	95.5
1967	1502	1603	3208	50.0	46.8	93.7
1968	1485	1573	3140	50.1	47.3	94.4
1969	1540	1621	3086	52.5	49.9	95.0
1970	1564	1604	3054	52.5	51.2	97.5
1971	1405	1538	2970	51.8	47.3	91.4
1972	1529	1615	3176	50.9	48.1	94.7
1973	1567	1648	3419	48.2	45.8	95.1
1974	1675	1691	3272	51.7	51.2	99.1
1975	1706	1748	3302	52.9	51.7	97.6
1976	1529	1639	2412	68.0	63.4	93.3
1977	1630	1790	3797	47.1	42.9	91.1
1978	1316	1514	4573	33.1	28.8	86.9
1979	1493	1668	4943	33.7	30.2	89.5
1980	1364	1637	4228	38.7	32.3	83.3

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

C. EL DORADO COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	1128	1250	2862	43.7	39.4	90.2
1959	781	938	3485	26.9	22.4	83.3
1962	558	744	4342	17.1	12.9	75.0
1964	594	809	5324	15.2	11.2	73.4
1965	632	871	5560	15.7	11.4	72.6
1966	609	1490	6514	22.9	9.3	40.9
1967	603	753	5786	13.0	10.4	80.1
1968	566	747	5403	13.8	10.5	75.8
1969	515	679	5532	12.3	9.3	75.8
1970	487	672	6507	10.3	7.5	72.5
1971	608	781	6498	12.0	9.4	77.8
1972	626	810	7218	11.2	8.7	77.3
1973	649	884	8111	10.9	8.0	73.4
1974	730	1103	9257	11.9	7.9	66.2
1975	687	1022	8929	11.4	7.7	67.2
1976	572	970	10008	9.7	5.7	59.0
1977	604	1085	11323	9.6	5.3	55.7
1978	603	1189	14111	8.4	4.3	50.7
1979	635	1338	15763	8.5	4.0	47.5
1980	638	1243	14874	8.4	4.3	51.3

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

D. HUMBOLDT COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	11022	12043	24680	48.8	44.7	91.5
1959	10142	11375	22251	51.1	45.6	89.2
1962	8890	10137	21398	47.4	41.5	87.7
1964	9367	10505	21613	48.6	43.3	89.2
1965	8565	10195	22906	44.5	37.4	84.0
1966	7791	9464	22102	42.8	35.3	82.3
1967	6594	8127	20512	39.6	32.1	81.1
1968	7128	8813	20808	42.4	34.3	80.9
1969	8123	9892	22370	44.2	36.3	82.1
1970	6765	8568	21227	40.4	31.9	79.0
1971	7124	9157	21268	43.1	33.5	77.8
1972	6683	8681	22074	39.3	30.3	77.0
1973	7282	9122	23764	38.4	30.6	79.8
1974	7554	9157	23384	39.2	32.3	82.5
1975	5688	7471	21758	34.3	26.1	76.1
1976	6366	8184	24123	33.9	26.4	77.8
1977	6440	8350	25196	33.1	25.6	77.1
1978	6031	7813	26895	29.1	22.4	77.2
1979	5506	7689	27773	27.7	19.8	71.6
1980	4848	6904	27005	25.6	18.0	70.2

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

E. LASSEN COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	959	1000	2180	45.9	44.0	95.9
1959	489	534	1666	32.1	29.4	91.6
1962	517	554	1694	32.7	30.5	93.3
1964	272	332	1628	20.4	16.7	81.9
1965	296	363	1807	20.1	16.4	81.5
1966	273	341	1824	18.7	15.0	80.1
1967	289	353	1899	18.6	15.2	81.9
1968	330	379	1965	19.3	16.8	87.1
1969	364	395	1882	21.0	19.3	92.2
1970	337	361	1924	18.8	17.5	93.4
1971	344	364	1873	19.4	18.4	94.5
1972	441	464	2098	22.1	21.0	95.0
1973	458	485	2474	19.6	18.5	94.4
1974	465	494	2248	22.0	20.7	94.1
1975	327	349	2093	16.7	15.6	93.7
1976	416	440	2169	20.3	19.2	94.5
1977	.	551	2402	22.9	.	.
1978	560	645	2708	23.8	20.7	86.8
1979	670	750	3036	24.7	22.1	89.3
1980	.	581	3105	18.7	.	.

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

F. MENDOCINO COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	5621	6393	10268	62.3	54.7	87.9
1959	4592	5341	8893	60.1	51.6	86.0
1962	2996	3791	7618	49.8	39.3	79.0
1964	3622	4014	8356	48.0	43.3	90.2
1965	3839	4207	9425	44.6	40.7	91.3
1966	3515	3832	8632	44.4	40.7	91.7
1967	3462	3862	8763	44.1	39.5	89.6
1968	3352	3668	8741	42.0	38.3	91.4
1969	3486	3784	9199	41.1	37.9	92.1
1970	3333	3727	9171	40.6	36.3	89.4
1971	3522	4092	9862	41.5	35.7	86.1
1972	3476	4085	10549	38.7	33.0	85.1
1973	3689	4270	11250	38.0	32.8	86.4
1974	2858	3916	10899	35.9	26.2	73.0
1975	2826	3601	10738	33.5	26.3	78.5
1976	3076	4001	12056	33.2	25.5	76.9
1977	3319	4590	13816	33.2	24.0	72.3
1978	3456	4677	15841	29.5	21.8	73.9
1979	3540	5033	17061	29.5	20.7	70.3
1980	3214	4755	16600	28.6	19.4	67.6

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

G. MODOC COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	.	423	933	45.3	.	.
1959	186	195	662	29.5	28.1	95.4
1962	127	154	702	21.9	18.1	82.5
1964	157	180	698	25.8	22.5	87.2
1965	171	211	848	24.9	20.2	81.0
1966	128	144	714	20.2	17.9	88.9
1967	.	104	659	15.8	.	.
1968	142	172	795	21.6	17.9	82.6
1969	135	156	830	18.8	16.3	86.5
1970	117	125	800	15.6	14.6	93.6
1971	130	130	849	15.3	15.3	100
1972	.	167	917	18.2	.	.
1973	109	145	906	16.0	12.0	75.2
1974	.	162	841	19.3	.	.
1975	142	173	893	19.4	15.9	82.1
1976	147	153	904	16.9	16.3	96.1
1977	143	153	957	16.0	14.9	93.5
1978	234	248	1061	23.4	22.1	94.4
1979	201	214	1071	20.0	18.8	93.9
1980	238	251	1275	19.7	18.7	94.8

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

H. NEVADA COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	563	717	2725	26.3	20.7	78.5
1959	384	528	2314	22.8	16.6	72.7
1962	205	345	2330	14.8	8.8	59.4
1964	309	458	3250	14.1	9.5	67.5
1965	427	601	3407	17.6	12.5	71.0
1966	329	534	3085	17.3	10.7	61.6
1967	313	515	3003	17.1	10.4	60.8
1968	430	649	3500	18.5	12.3	66.3
1969	428	665	3570	18.6	12.0	64.4
1970	407	663	3553	18.7	11.5	61.4
1971	403	592	3634	16.3	11.1	68.1
1972	384	606	3899	15.5	9.8	63.4
1973	375	760	4106	18.5	9.1	49.3
1974	441	825	4574	18.0	9.6	53.5
1975	428	907	4807	18.9	8.9	47.2
1976	563	1038	5224	19.9	10.8	54.2
1977	521	1065	6351	16.8	8.2	48.9
1978	788	1544	8573	18.0	9.2	51.0
1979	771	1706	9687	17.6	8.0	45.2
1980	828	1895	10383	18.3	8.0	43.7

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

I. PLUMAS COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	1049	1058	2054	51.5	51.1	99.1
1959	940	952	1772	53.7	53.0	98.7
1962	812	829	1792	46.3	45.3	97.9
1964	977	1007	2267	44.4	43.1	97.0
1965	1165	1194	2555	46.7	45.6	97.6
1966	1146	1180	2313	51.0	49.5	97.1
1967	963	990	2347	42.2	41.0	97.3
1968	.	997	2343	42.6	.	.
1969	716	866	2155	40.2	33.2	82.7
1970	596	750	1881	39.9	31.7	79.5
1971	.	653	1817	35.9	.	.
1972	.	786	1896	41.5	.	.
1973	773	792	1954	40.5	39.6	97.6
1974	792	821	2176	37.7	36.4	96.5
1975	670	703	2015	34.9	33.3	95.3
1976	824	851	2297	37.0	35.9	96.8
1977	846	872	2410	36.2	35.1	97.0
1978	871	911	2627	34.7	33.2	95.6
1979	848	917	2889	31.7	29.4	92.5
1980	897	990	2983	33.2	30.1	90.6

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

J. SHASTA COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	2781	3007	8866	33.9	31.4	92.5
1959	3090	3315	9621	34.5	32.1	93.2
1962	2673	3169	10724	29.6	24.9	84.3
1964	3050	3532	12976	27.2	23.5	86.4
1965	2870	3703	15058	24.6	19.1	77.5
1966	2895	3826	14291	26.8	20.3	75.7
1967	2708	3613	14152	25.5	19.1	75.0
1968	2652	3587	14144	25.4	18.8	73.9
1969	2498	3516	14337	24.5	17.4	71.0
1970	2287	3373	14979	22.5	15.3	67.8
1971	2348	3596	14573	24.7	16.1	65.3
1972	2342	3833	15730	24.4	14.9	61.1
1973	2583	4073	16766	24.3	15.4	63.4
1974	3209	4586	17636	26.0	18.2	70.0
1975	2228	3487	17127	20.4	13.0	63.9
1976	2686	4059	20038	20.3	13.4	66.2
1977	2775	4348	22036	19.7	12.6	63.8
1978	2907	4760	25184	18.9	11.5	61.1
1979	2873	4710	27301	17.3	10.5	61.0
1980	2009	3940	27465	14.3	7.3	51.0

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

K. SIERRA COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	331	331	480	69.0	69.0	100
1959	327	327	457	71.6	71.6	100
1962	266	266	421	63.2	63.2	100
1964	312	.	483	.	64.6	.
1965	.	.	497	.	.	.
1966	.	.	468	.	.	.
1967	.	.	424	.	.	.
1968	241	246	381	64.6	63.3	98.0
1969	287	287	401	71.6	71.6	100
1970	.	243	364	66.8	.	.
1971	.	.	312	.	.	.
1972	.	.	411	.	.	.
1973	248	248	410	60.5	60.5	100
1974	189	189	307	61.6	61.6	100
1975	.	.	216	.	.	.
1976	.	85	242	35.1	.	.
1977	255	265	404	65.6	63.1	96.2
1978	.	199	362	55.0	.	.
1979	.	183	390	46.9	.	.
1980	147	149	332	44.9	44.3	98.7

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

L. SISKIYOU COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	2981	3172	6002	52.8	49.7	94.0
1959	2908	3091	5925	52.2	49.1	94.1
1962	2392	2632	5325	49.4	44.9	90.9
1964	2928	3144	6120	51.4	47.8	93.1
1965	2792	3058	6422	47.6	43.5	91.3
1966	2722	2924	6335	46.2	43.0	93.1
1967	2918	3166	6497	48.7	44.9	92.2
1968	2312	2507	5882	42.6	39.3	92.2
1969	2245	2441	5950	41.0	37.7	92.0
1970	2064	2222	5746	38.7	35.9	92.9
1971	1654	1862	5498	33.9	30.1	88.8
1972	1876	2039	6363	32.0	29.5	92.0
1973	2013	2187	6628	33.0	30.4	92.0
1974	1810	1997	6189	32.3	29.2	90.6
1975	1476	1673	5631	29.7	26.2	88.2
1976	1774	2076	6412	32.4	27.7	85.5
1977	1858	2143	6880	31.1	27.0	86.7
1978	1942	2261	8009	28.2	24.2	85.9
1979	2165	2410	8297	29.0	26.1	89.8
1980	1832	2093	7909	26.5	23.2	87.5

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

M. TEHAMA COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	657	933	3488	26.7	18.8	70.4
1959	1588	1951	4599	42.4	34.5	81.4
1962	1412	1918	4742	40.4	29.8	73.6
1964	1463	2010	4552	44.2	32.1	72.8
1965	1437	1846	4730	39.0	30.4	77.8
1966	1436	1982	4756	41.7	30.2	72.5
1967	1467	2002	5056	39.6	29.0	73.3
1968	1785	2302	5115	45.0	34.9	77.5
1969	1821	2472	5511	44.9	33.0	73.7
1970	1729	2436	5269	46.2	32.8	71.0
1971	2414	3026	5913	51.2	40.8	79.8
1972	2219	2654	5637	47.1	39.4	83.6
1973	1854	2435	5561	43.8	33.3	76.1
1974	1051	1893	5003	37.8	21.0	55.5
1975	1007	1747	4630	37.7	21.7	57.6
1976	1114	1853	5212	35.6	21.4	60.1
1977	1335	2081	5717	36.4	23.4	64.2
1978	1417	2106	6331	33.3	22.4	67.3
1979	1412	2085	6758	30.9	20.9	67.7
1980	1355	1955	6451	30.3	21.0	69.3

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

N. TRINITY COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	.	984	1293	76.1	.	.
1959	711	791	1348	58.7	52.7	89.9
1962	391	460	814	56.5	48.0	85.0
1964	.	512	844	60.7	.	.
1965	.	493	941	52.4	.	.
1966	377	431	874	49.3	43.1	87.5
1967	308	317	732	43.3	42.1	97.2
1968	291	384	911	42.2	31.9	75.8
1969	303	477	962	49.6	31.5	63.5
1970	239	425	847	50.2	28.2	56.2
1971	360	559	936	59.7	38.5	64.4
1972	.	614	1158	53.0	.	.
1973	697	697	1230	56.7	56.7	100
1974	.	511	989	51.7	.	.
1975	256	401	921	43.5	27.8	63.8
1976	.	515	1201	42.9	.	.
1977	.	720	1362	52.9	.	.
1978	.	700	1448	48.3	.	.
1979	409	435	1297	33.5	31.5	94.0
1980	393	422	1235	34.2	31.8	93.1

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 1. CALIFORNIA COUNTY EMPLOYMENT

O. YUBA COUNTY

YEAR	EMPLOYMENT			PERCENTAGES		
	L&WP	MANUF	ALL	MANUF/ ALL	L&WP/ ALL	L&WP/ MANUF
1956	484	643	5370	12.0	9.0	75.3
1959	378	562	5148	10.9	7.3	67.3
1962	376	612	8252	7.4	4.6	61.4
1964	444	773	5538	14.0	8.0	57.4
1965	452	765	5854	13.1	7.7	59.1
1966	363	616	5624	11.0	6.5	58.9
1967	309	594	6876	8.6	4.5	52.0
1968	270	548	7335	7.5	3.7	49.3
1969	209	699	7050	9.9	3.0	29.9
1970	235	603	6011	10.0	3.9	39.0
1971	256	610	5877	10.4	4.4	42.0
1972	413	896	6509	13.8	6.3	46.1
1973	355	811	6344	12.8	5.6	43.8
1974	723	1237	6291	19.7	11.5	58.4
1975	633	955	6068	15.7	10.4	66.3
1976	610	1050	6484	16.2	9.4	58.1
1977	662	923	6742	13.7	9.8	71.7
1978	913	1240	7520	16.5	12.1	73.6
1979	913	1341	8099	16.6	11.3	68.1
1980	814	1227	7980	15.4	10.2	66.3

EMPLOYMENT IN L&WP (SIC24, LUMBER AND WOOD PRODUCTS),
MANUFACTURING AND ALL SECTORS.

SOURCE: U.S. DEPARTMENT OF COMMERCE, COUNTY BUSINESS
PATTERNS.

TABLE 2. UNEMPLOYMENT RATE IN SELECTED CALIFORNIA COUNTIES

COUNTY	1970	1971	1972	1973*	1974	1975
AMADOR	8.2	8.9	8.1	8.0	8.7	9.6
BUTTE	NA	NA	NA	NA	10.9	13.7
CALAVERAS	7.0	9.8	9.2	9.2	15.9	14.7
DEL NORTE	11.4	12.0	12.4	14.2	16.3	20.0
EL DORADO	9.3	11.2	11.0	12.5	14.3	17.4
FRESNO	NA	NA	NA	NA	NA	NA
HUMBOLDT	10.1	10.6	9.5	10.8	12.7	16.1
LASSEN	10.9	11.4	11.5	16.9	17.3	20.0
MADERA	NA	NA	NA	NA	9.1	10.8
MENDOCINO	8.9	9.2	8.6	8.8	11.5	14.8
MODOC	6.7	7.9	7.1	9.7	10.1	11.9
NEVADA	10.4	10.3	9.0	8.6	12.3	14.3
PLACER	NA	NA	NA	NA	7.7	9.6
SHASTA	9.4	9.8	9.7	11.2	12.7	16.3
SIERRA	5.3	10.0	9.3	9.8	12.4	13.4
SISKIYOU	8.6	9.7	8.5	10.7	13.1	16.1
SONOMA	NA	NA	NA	NA	9.2	13.0
TEHAMA	7.7	9.7	9.0	10.5	12.3	15.3
TRINITY	7.3	7.8	9.2	9.1	14.7	13.6
TUOLUMNE	8.7	10.2	10.8	10.6	15.1	18.6
YUBA SUTTER	9.3	10.3	9.6	10.8	11.3	13.3
CALIFORNIA	7.2	8.8	7.6	7.0	7.3	9.9
COUNTY	1976	1977	1978	1979	1980	1981
AMADOR	9.8	12.5	9.4	8.6	11.5	11.3
BUTTE	12.8	12.2	10.5	9.3	9.7	11.2
CALAVERAS	13.6	13.0	10.0	10.6	10.4	12.3
DEL NORTE	16.6	13.4	12.4	12.9	13.2	17.3
EL DORADO	15.2	13.5	9.9	9.0	9.4	10.0
FRESNO	NA	NA	8.8	8.0	9.1	10.5
HUMBOLDT	13.6	13.8	13.2	11.6	12.3	13.9
LASSEN	16.3	12.2	8.1	10.0	11.0	13.3
MADERA	10.1	9.8	9.3	7.8	10.0	8.8
MENDOCINO	11.4	10.8	9.0	8.7	10.6	11.8
MODOC	11.2	7.0	5.3	6.7	7.3	8.2
NEVADA	12.8	13.3	11.0	9.6	9.8	11.2
PLACER	9.5	8.8	9.1	7.4	9.1	10.1
SHASTA	14.7	14.0	11.4	11.1	13.1	14.9
SIERRA	14.4	15.1	13.1	14.1	15.3	18.6
SISKIYOU	13.8	13.4	11.2	12.1	15.2	16.4
SONOMA	11.4	9.7	7.5	6.7	7.4	8.2
TEHAMA	13.7	12.0	10.5	10.4	12.2	13.9
TRINITY	14.2	18.0	14.7	14.3	14.9	17.5
TUOLUMNE	14.7	13.1	11.2	11.2	11.8	13.8
YUBA SUTTER	12.8	14.1	13.4	12.8	14.1	15.7
CALIFORNIA	9.2	8.2	7.1	6.2	6.8	7.4

* 1970-1973 DATA NOT COMPARABLE TO 1974-1981 DATA

NA = NOT AVAILABLE

SOURCE: CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT. LABOR MARKET NEWSLETTERS AND ANNUAL PLANNING INFORMATION.

TABLE 3. COUNTY TIMBER PRODUCTION AND EMPLOYMENT

AMADOR				BUTTE		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	625	38.9	16.07	1425	49.0	29.11
1973	825	36.8	22.44	1515	48.9	31.00
1974	800	35.0	22.83	1350	29.9	45.13
1975	775	40.2	19.26	1375	43.2	31.86
1976	800	39.5	20.25	1525	69.9	21.80
1977	875	61.6	14.20	1650	61.0	27.06
1978	845	33.7	25.08	1725	80.8	21.36
1979	875	28.4	30.81	1700	85.9	19.78
1980	700	22.6	30.97	1525	42.6	35.76
1981	750	39.8	18.87	1350	32.1	42.03

CALAVERAS				DEL NORTE		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	125	47.8	2.62	1550	240.2	6.45
1973	100	51.7	1.93	1525	216.9	7.03
1974	75	21.1	3.56	1540	229.8	6.70
1975	100	36.0	2.78	1450	208.9	6.94
1976	125	60.4	2.07	1350	242.5	5.57
1977	75	78.5	0.95	1425	265.4	5.37
1978	100	74.2	1.35	1475	344.1	4.29
1979	75	50.2	1.49	1475	294.8	5.00
1980	75	30.6	2.45	1450	210.7	6.88
1981	75	34.9	2.15	1250	180.8	6.91

EL DORADO				FRESNO		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	725	194.9	3.72	1400	88.5	15.82
1973	775	197.2	3.93	1300	99.8	13.02
1974	775	301.7	2.57	1300	121.3	10.72
1975	700	262.0	2.67	1300	136.3	9.54
1976	725	228.0	3.18	1400	94.4	14.82
1977	725	211.4	3.43	1200	81.8	14.68
1978	750	180.3	4.16	1200	83.4	14.39
1979	775	151.6	5.11	1400	105.6	13.26
1980	725	150.7	4.81	1300	55.4	23.49
1981	625	150.2	4.16	1200	56.8	21.14

TABLE 3 (CONT.) COUNTY TIMBER PRODUCTION AND EMPLOYMENT

HUMBOLDT				LASSEN		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	7925	1087.9	7.28	575	97.8	5.88
1973	7975	1098.9	7.26	575	119.7	4.80
1974	7300	1023.6	7.13	475	109.1	4.35
1975	6525	955.3	6.83	450	112.3	4.01
1976	6925	959.2	7.22	550	123.3	4.46
1977	6825	903.5	7.55	550	172.8	3.18
1978	6175	566.6	10.90	650	139.1	4.67
1979	6000	463.3	12.95	550	99.5	5.53
1980	4900	419.9	11.67	550	85.1	6.47
1981	4500	405.3	11.10	475	52.7	9.01

MENDOCINO				MODOC		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	3650	540.3	6.75	225	98.8	2.28
1973	3550	529.9	6.70	200	95.9	2.09
1974	3500	519.3	6.74	225	134.7	1.67
1975	3125	490.5	6.37	175	80.9	2.16
1976	3675	573.1	6.41	175	98.3	1.78
1977	3750	617.4	6.07	200	81.6	2.45
1978	3750	439.8	8.53	250	139.5	1.79
1979	3625	329.9	10.99	250	101.3	2.47
1980	3200	343.5	9.32	200	74.1	2.70
1981	3000	346.8	8.65	175	42.2	4.15

NEVADA				PLUMAS		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	575	79.5	7.23	1025	286.7	3.58
1973	575	62.6	9.18	1050	305.4	3.44
1974	625	53.9	11.60	975	248.2	3.93
1975	600	37.7	15.91	850	214.5	3.96
1976	675	54.8	12.32	975	220.4	4.42
1977	650	79.3	8.20	1025	155.7	6.58
1978	600	57.7	10.39	1125	238.2	4.72
1979	700	43.9	15.95	1125	280.1	4.02
1980	525	23.6	22.22	1000	180.1	5.55
1981	475	32.2	14.75	900	120.9	7.44

TABLE 3 (CONT.) COUNTY TIMBER PRODUCTION AND EMPLOYMENT

SAN MATEO				SHASTA		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	300	6.4	47.01	3125	405.9	7.70
1973	300	5.3	56.69	3450	401.5	8.59
1974	300	5.6	53.73	3050	371.2	8.22
1975	300	6.7	44.97	2550	330.4	7.72
1976	300	5.8	51.34	2925	451.5	6.48
1977	300	6.8	43.83	2925	458.1	6.39
1978	400	5.7	69.91	2975	340.3	8.74
1979	400	7.3	54.89	2650	248.3	10.67
1980	400	3.5	114.09	2275	167.8	13.56
1981	400	6.4	62.05	1800	171.5	10.49

SISKIYOU				SONOMA		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	2525	463.6	5.45	2400	66.4	36.14
1973	2425	462.2	5.25	2400	66.2	36.26
1974	2225	425.2	5.23	2200	76.5	28.74
1975	1975	395.4	4.99	1900	68.4	27.76
1976	2275	364.4	6.24	1900	50.1	37.91
1977	2425	479.6	5.06	2000	33.2	60.15
1978	2550	557.9	4.57	2100	25.6	81.93
1979	2325	510.2	4.56	2200	30.3	72.50
1980	1675	470.0	3.56	2000	22.8	87.89
1981	1525	319.7	4.77	1800	24.3	74.08

TEHAMA				TRINITY		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	1650	161.1	10.24	575	244.3	2.35
1973	1700	151.7	11.20	675	235.0	2.87
1974	1500	133.9	11.20	675	237.6	2.84
1975	1175	141.1	8.33	550	184.2	2.99
1976	1425	158.3	9.00	675	255.0	2.65
1977	1650	115.1	14.33	675	217.8	3.10
1978	1750	135.0	12.96	575	222.5	2.58
1979	1775	139.3	12.74	500	240.8	2.08
1980	1600	147.2	10.87	475	174.7	2.72
1981	1500	120.6	12.44	375	161.9	2.32

TABLE 3 (CONT.) COUNTY TIMBER PRODUCTION AND EMPLOYMENT

YEAR	TUOLUMNE			YUBA		
	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	700	150.7	4.65	700	150.7	61.83
1973	675	145.2	4.65	675	145.2	37.66
1974	650	166.0	3.92	650	166.0	31.81
1975	625	120.7	5.18	625	120.7	40.21
1976	700	184.5	3.79	700	184.5	39.42
1977	675	174.3	3.87	675	174.3	46.67
1978	725	151.3	4.79	725	151.3	86.50
1979	675	136.4	4.95	675	136.4	112.76
1980	575	116.1	4.95	575	116.1	42.73
1981	425	63.9	6.65	425	63.9	70.32

TOTAL

YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	32650	4373.7	7.47
1973	33090	4370.7	7.57
1974	30890	4285.9	7.21
1975	27700	3894.7	7.11
1976	30475	4268.6	7.14
1977	31200	4289.4	7.27
1978	31445	3835.4	8.20
1979	30725	3361.8	9.14
1980	26725	2777.9	9.62
1981	23975	2382.6	10.06

SOURCES:

TIMBER EMPLOYMENT - STATE OF CALIFORNIA EMPLOYMENT DEVELOPMENT DEPARTMENT. COUNTY LUMBER AND WOOD PRODUCTS WORKSHEETS.

TIMBER PRODUCTION - 1972-1977 CALIFORNIA DEPARTMENT OF FORESTRY. STATE FOREST NOTES. PRODUCTION OF CALIFORNIA TIMBER OPERATORS.
1978-1981 CALIFORNIA STATE BOARD OF EQUALIZATION. TIMBER TAX DIVISION. CALIFORNIA TIMBER HARVEST.

TABLE 4. TIMBER PRODUCTION AND EMPLOYMENT BY REGIONS

REGION 1				REGION 2		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	10050	1572.4	6.39	6050	606.8	9.97
1973	10175	1550.8	6.56	5950	596.1	9.98
1974	9515	1491.0	6.38	5700	595.8	9.57
1975	8525	1348.4	6.32	5025	559.0	8.99
1976	8950	1456.7	6.14	5575	623.2	8.95
1977	8925	1386.7	6.44	5750	650.6	8.84
1978	8225	1133.1	7.26	5850	465.4	12.57
1979	7975	998.8	7.98	5825	360.2	16.17
1980	6825	805.4	8.47	5200	366.2	14.20
1981	6125	748.0	8.19	4800	371.1	12.93

REGION 3				REGION 4		
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	6450	1066.1	6.05	4675	576.2	8.11
1973	6650	1079.3	6.16	4840	568.7	8.51
1974	5975	1040.2	5.74	4450	465.9	9.55
1975	5150	919.1	5.60	4000	436.5	9.16
1976	5925	1037.6	5.71	4600	503.4	9.14
1977	6100	1192.1	5.12	4975	411.1	12.10
1978	6425	1176.7	5.46	5200	511.7	10.16
1979	5775	959.3	6.02	5300	549.3	9.65
1980	4700	797.0	5.90	4650	393.6	11.81
1981	3975	586.1	6.78	4225	305.9	13.81

REGION 5			
YEAR	TIMBER EMPLOY. MAN-YRS	TIMBER PROD. MMBF	MAN-YRS PER MMBF
1972	2175	432.3	5.03
1973	2375	430.9	5.51
1974	2300	523.7	4.39
1975	2200	458.9	4.79
1976	2350	512.4	4.59
1977	2350	525.8	4.47
1978	2420	439.4	5.51
1979	2400	366.7	6.55
1980	2075	319.9	6.49
1981	1875	288.8	6.49

SOURCE: TABLE 3.

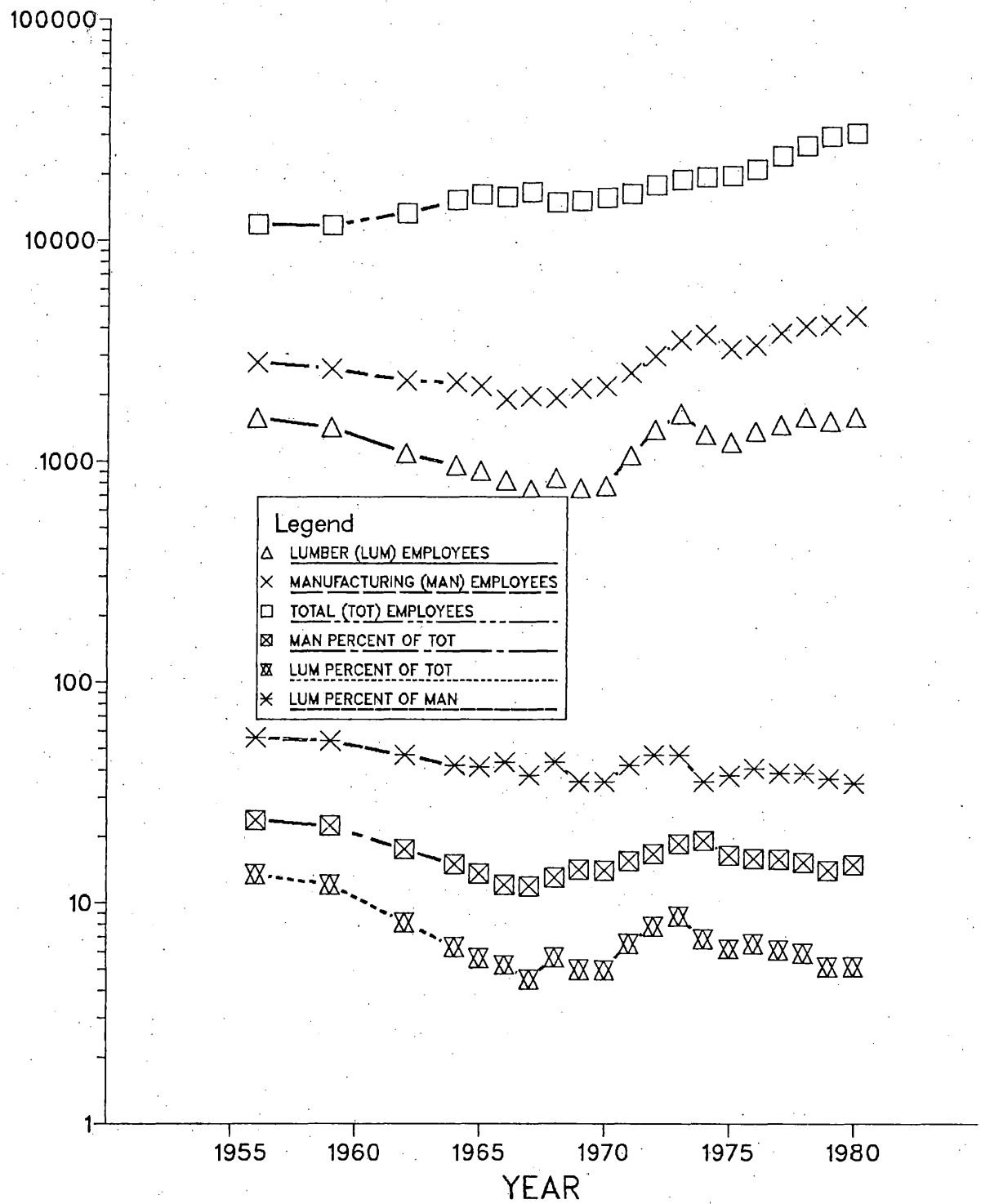
COUNTIES BY REGION:

- (1) DEL NORTE, HUMBOLDT, TRINITY.
- (2) MENDOCINO, SONOMA.
- (3) LASSEN, MODOC, SHASTA, SISKIYOU.
- (4) BUTTE, NEVADA, PLUMAS, TEHAMA, YUBA.
- (5) AMADOR, CALAVERAS, EL DORADO, TUOLUMNE.

Appendix A: Employment trends in selected
California counties

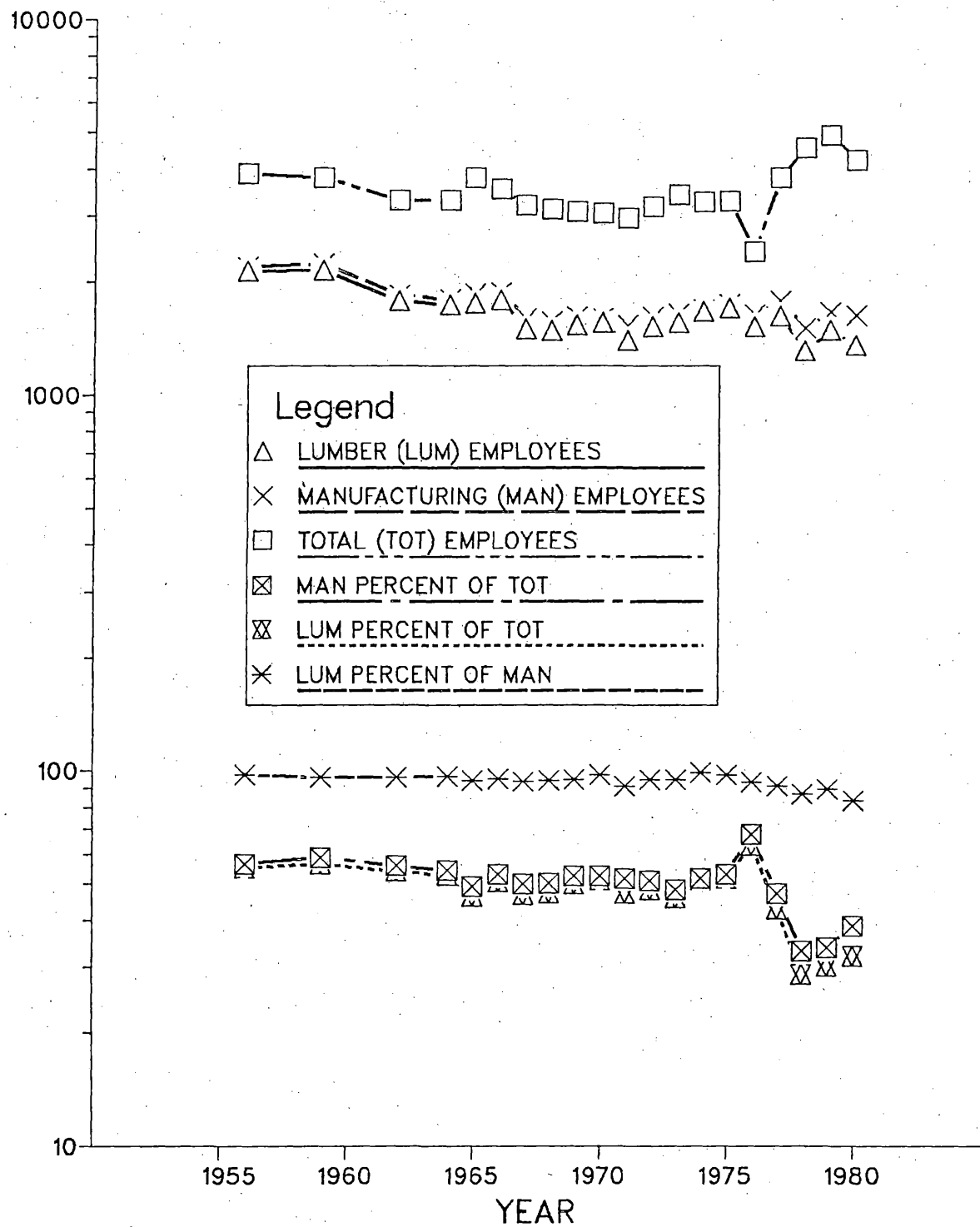
EMPLOYMENT TRENDS IN BUTTE COUNTY

Y AXIS LOGARITHMIC SCALE



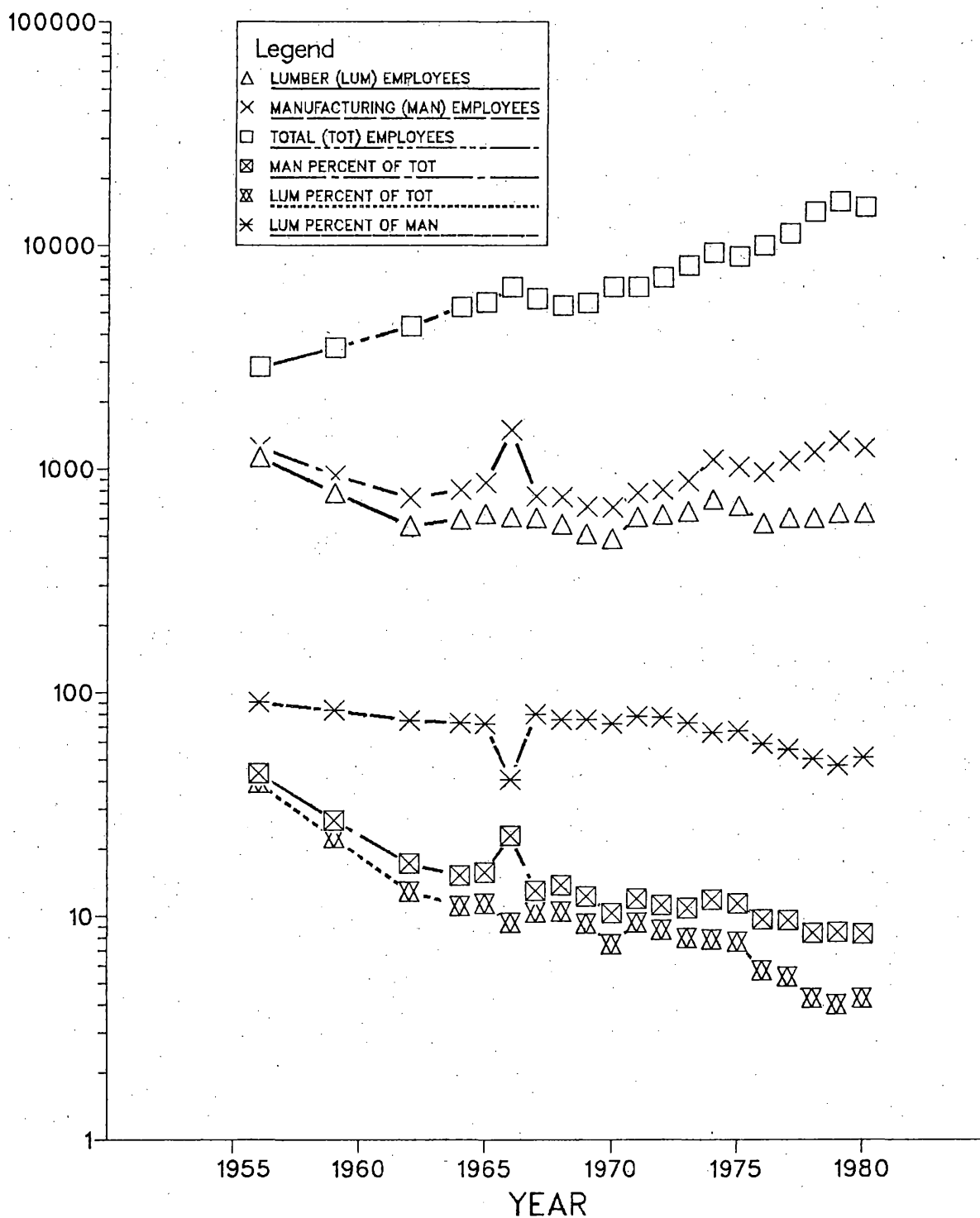
EMPLOYMENT TRENDS IN DEL NORTE COUNTY

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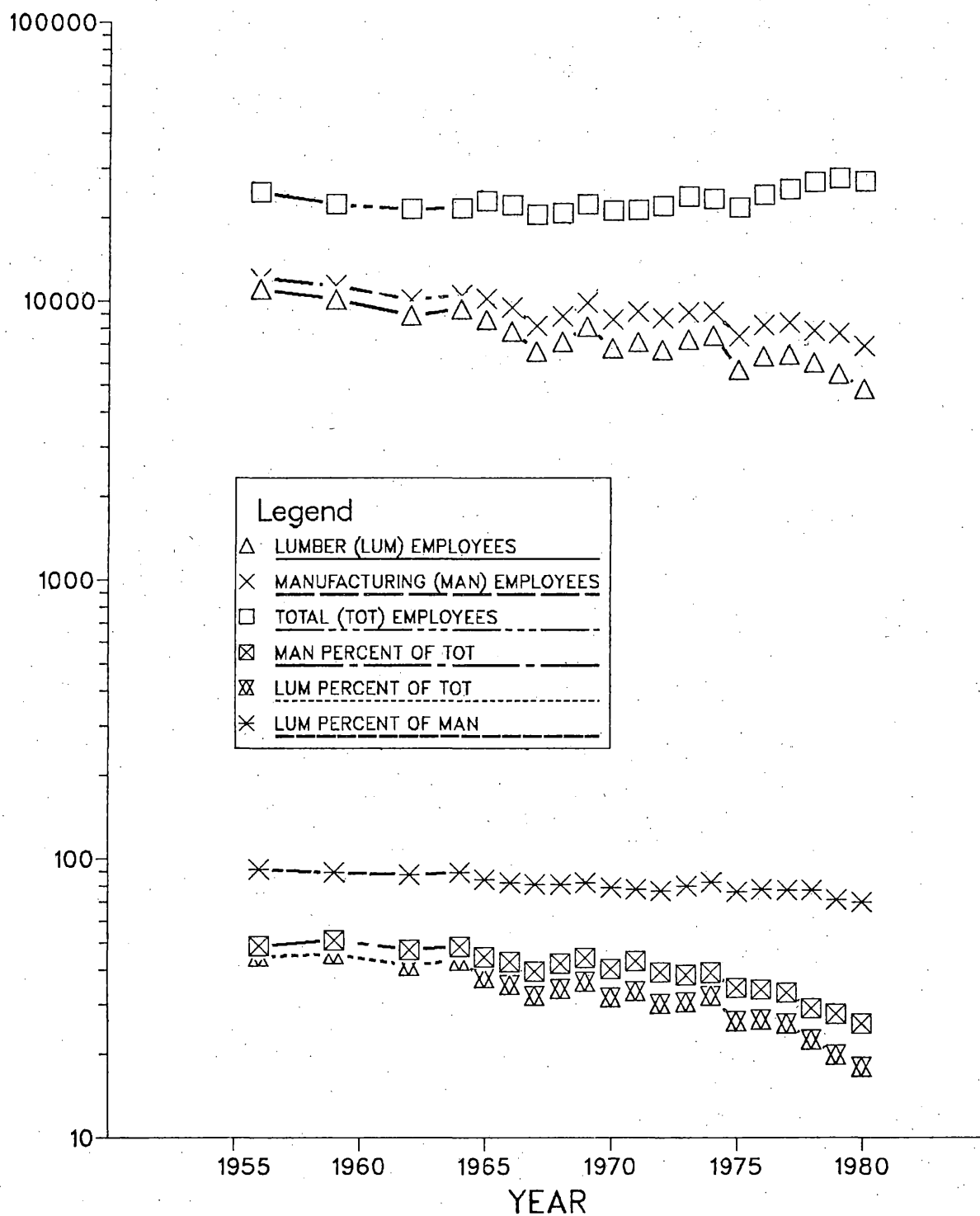
EMPLOYMENT TRENDS IN EL DORADO COUNTY

Y AXIS LOGARITHMIC SCALE



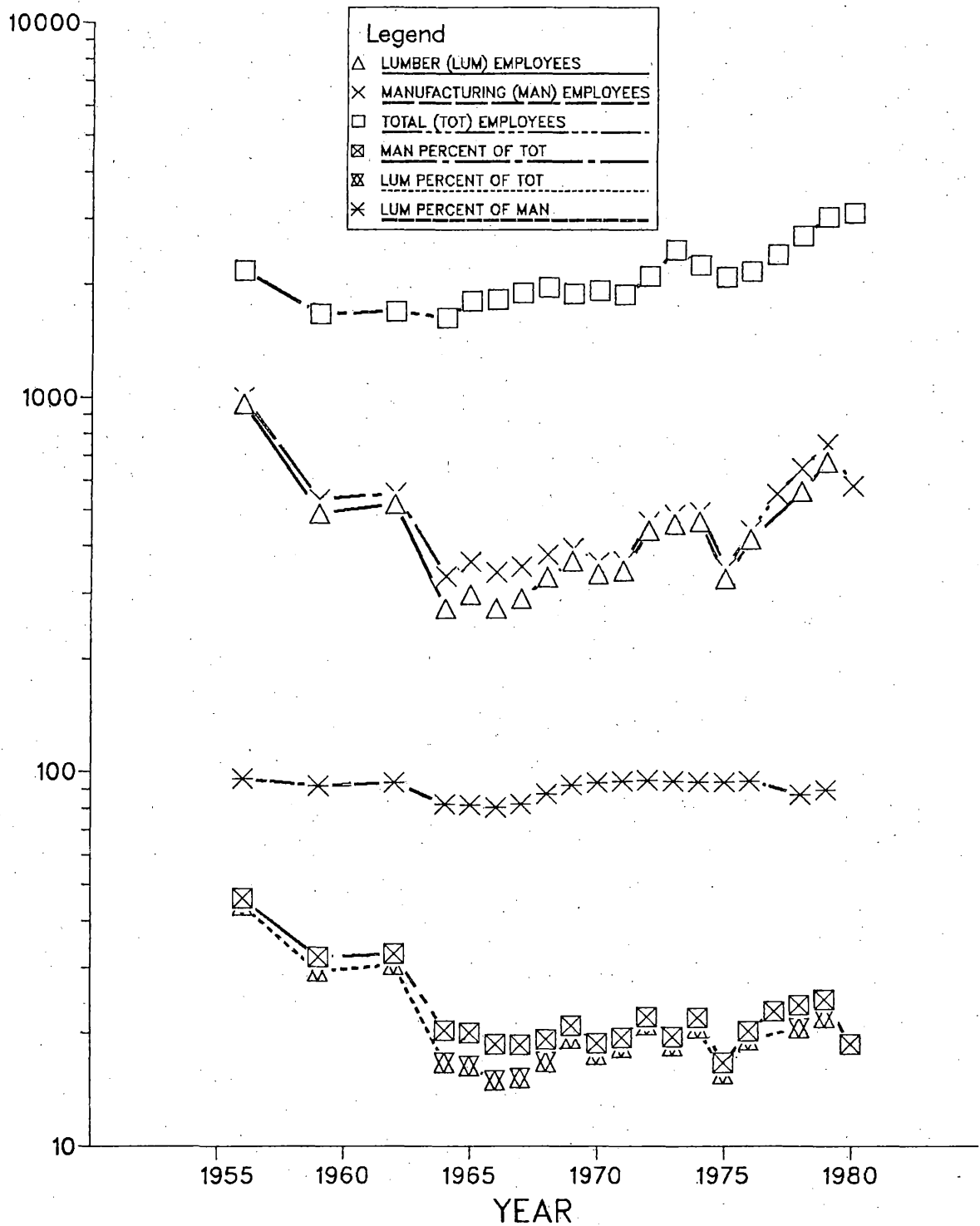
EMPLOYMENT TRENDS IN HUMBOLDT COUNTY

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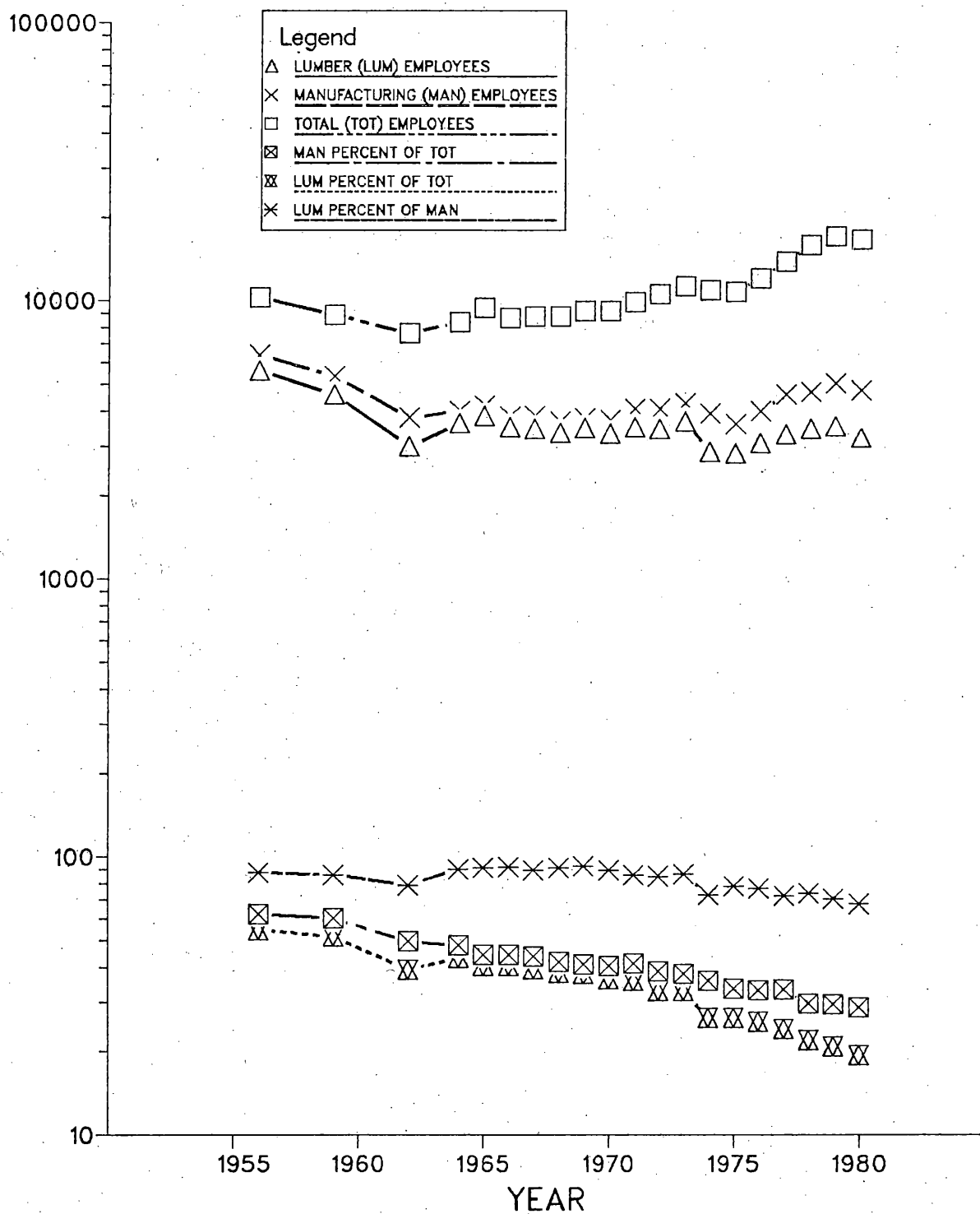
EMPLOYMENT TRENDS IN LASSEN COUNTY

Y AXIS LOGARITHMIC SCALE



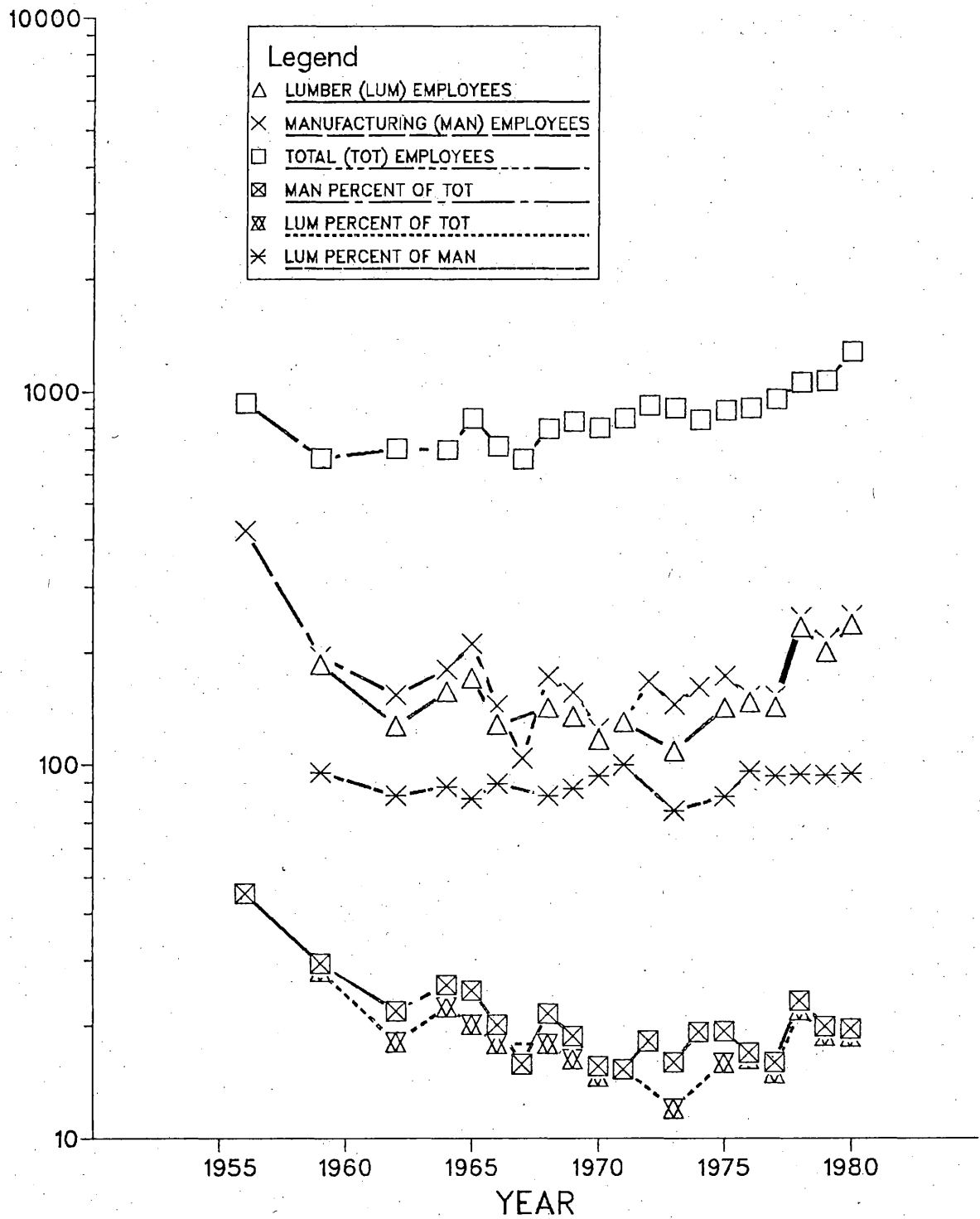
EMPLOYMENT TRENDS IN MENDOCINO COUNTY

Y AXIS LOGARITHMIC SCALE



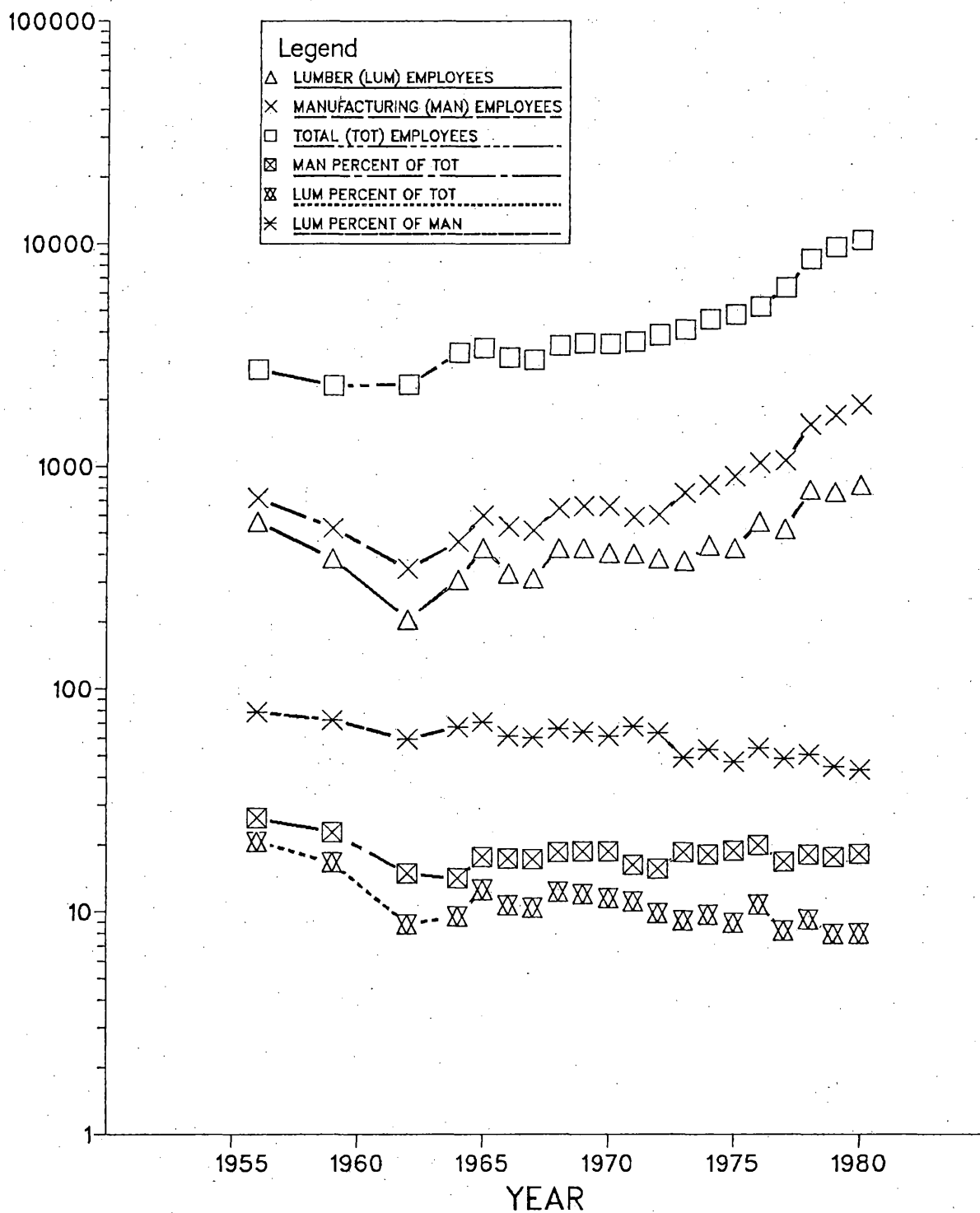
EMPLOYMENT TRENDS IN MODOC COUNTY

Y AXIS LOGARITHMIC SCALE



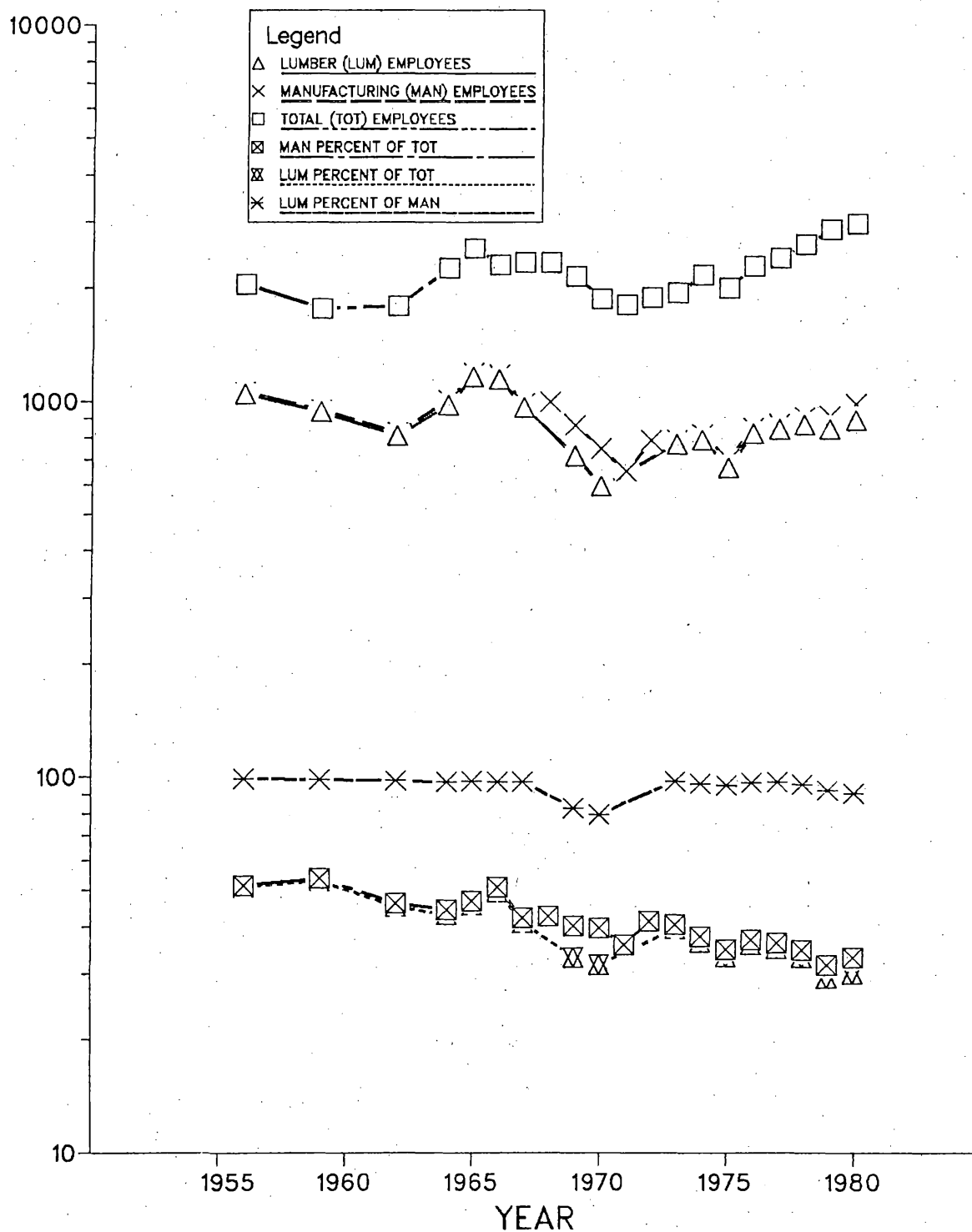
EMPLOYMENT TRENDS IN NEVADA COUNTY

Y AXIS LOGARITHMIC SCALE



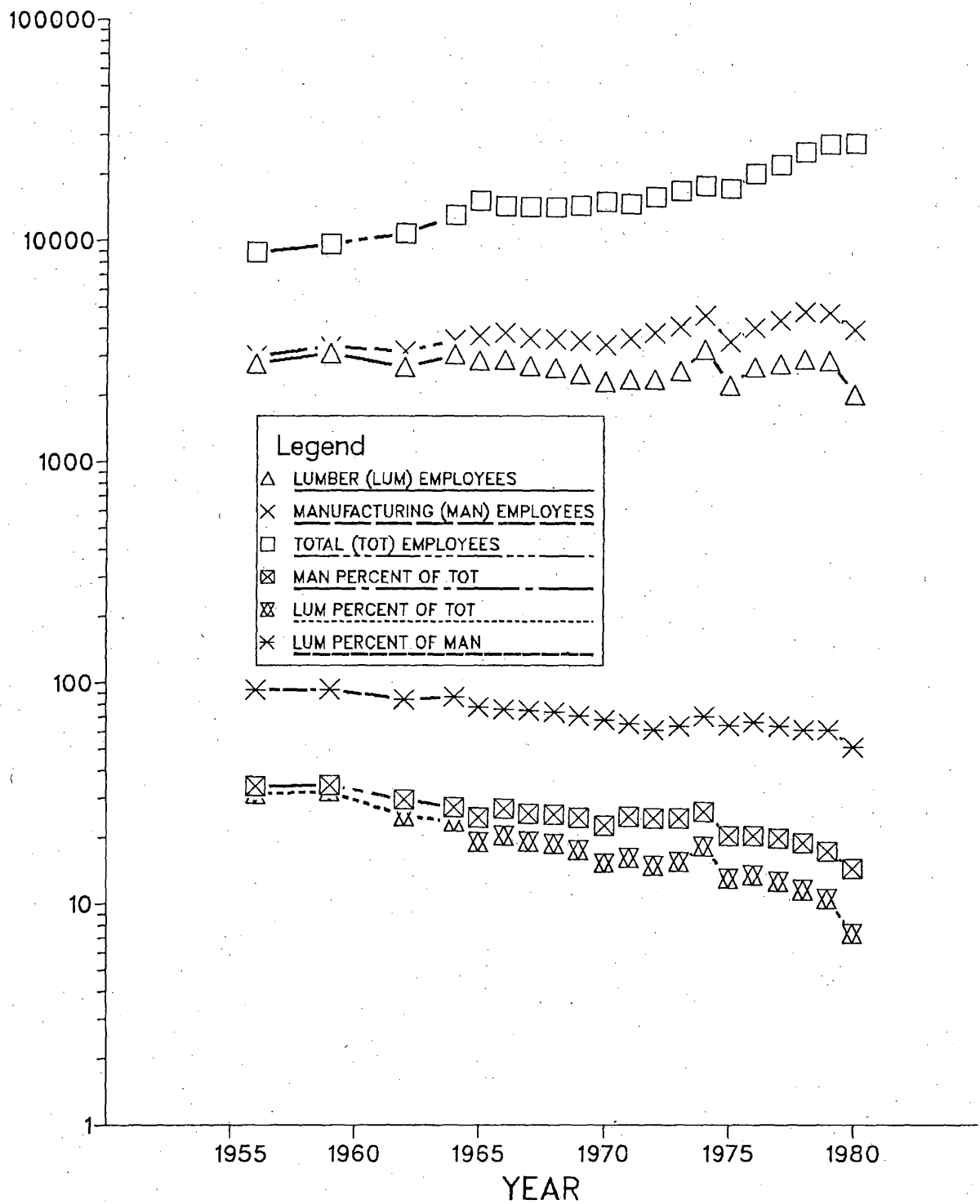
EMPLOYMENT TRENDS IN PLUMAS COUNTY

Y AXIS LOGARITHMIC SCALE



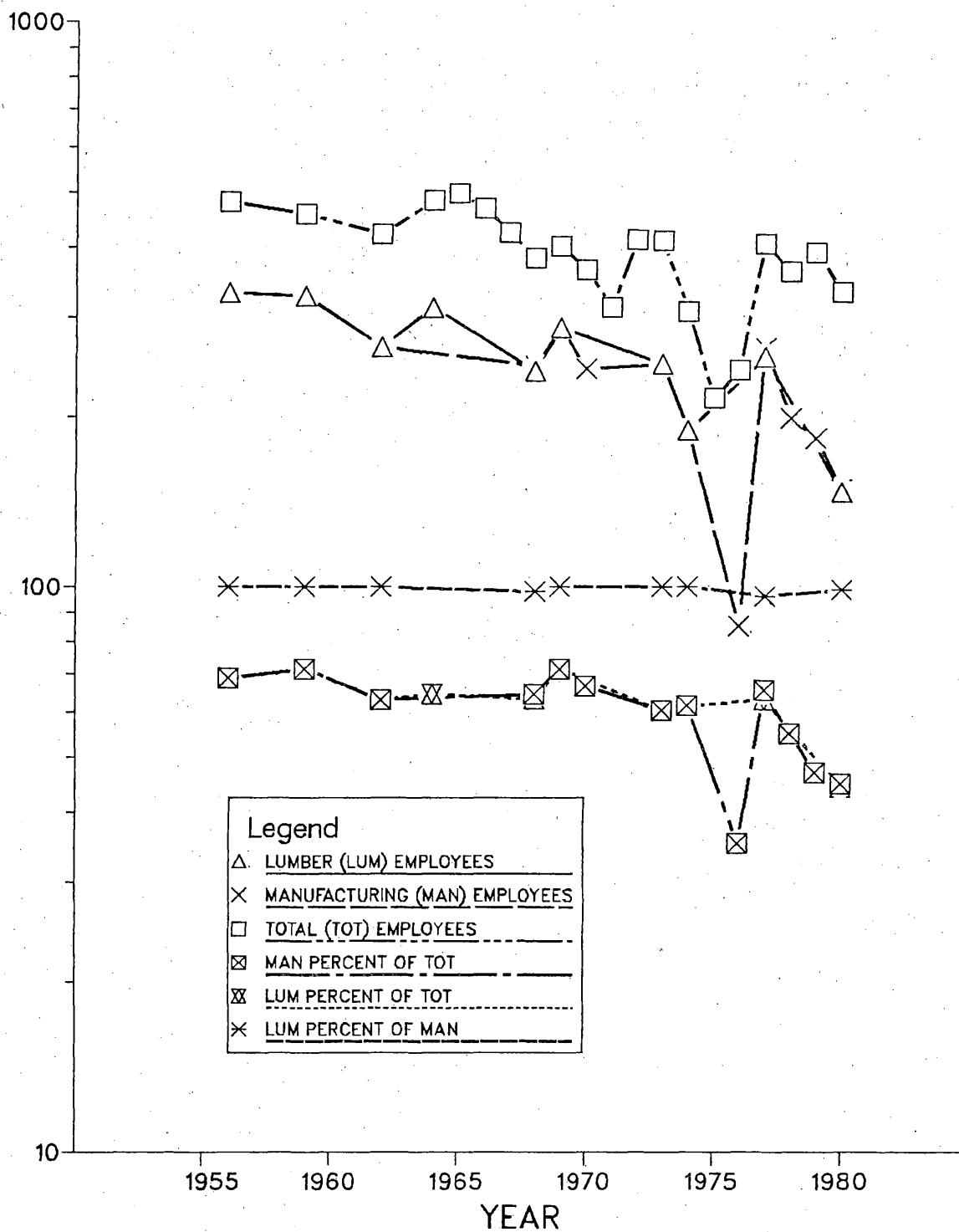
EMPLOYMENT TRENDS IN SHASTA COUNTY

Y AXIS LOGARITHMIC SCALE



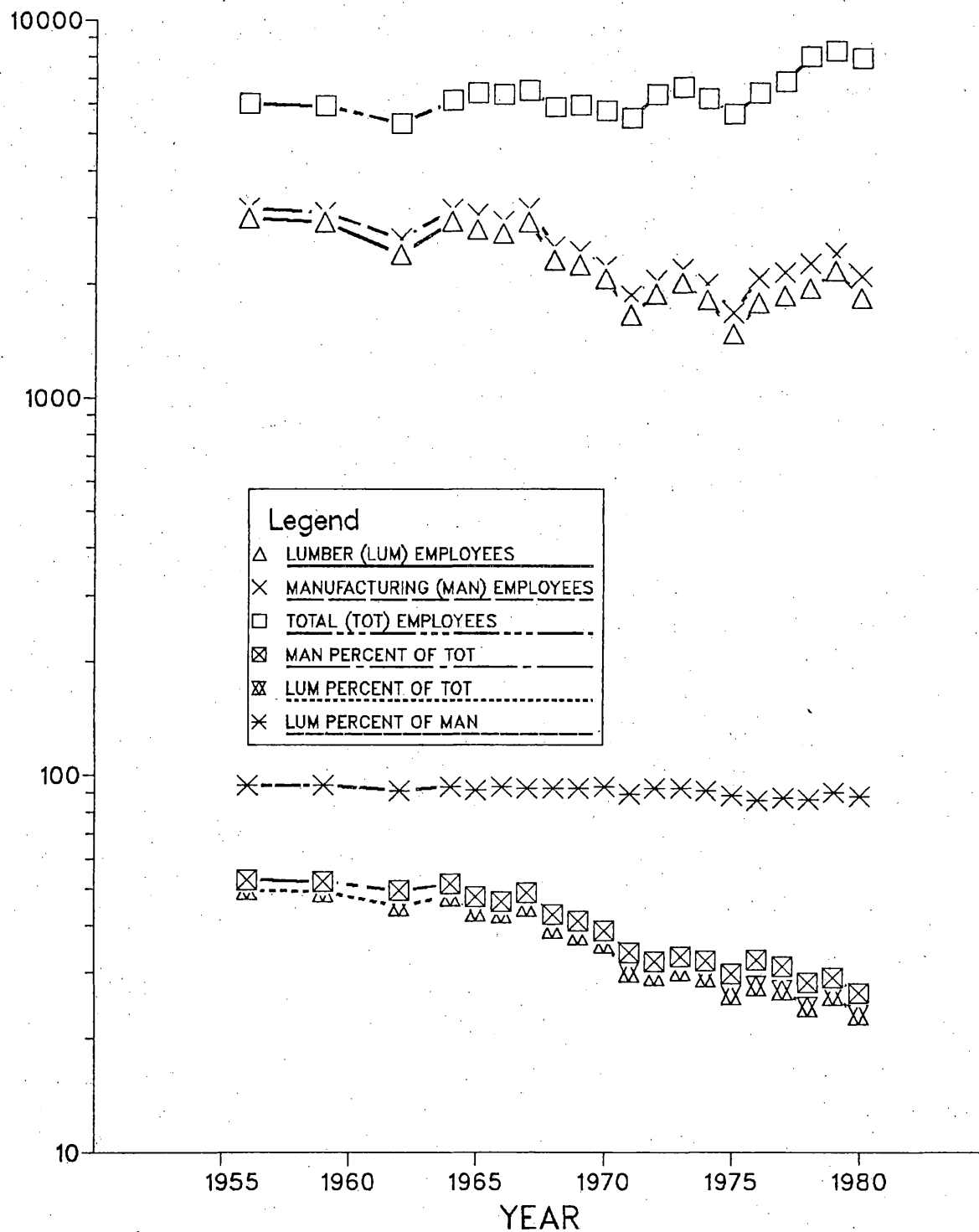
EMPLOYMENT TRENDS IN SIERRA COUNTY

Y AXIS LOGARITHMIC SCALE



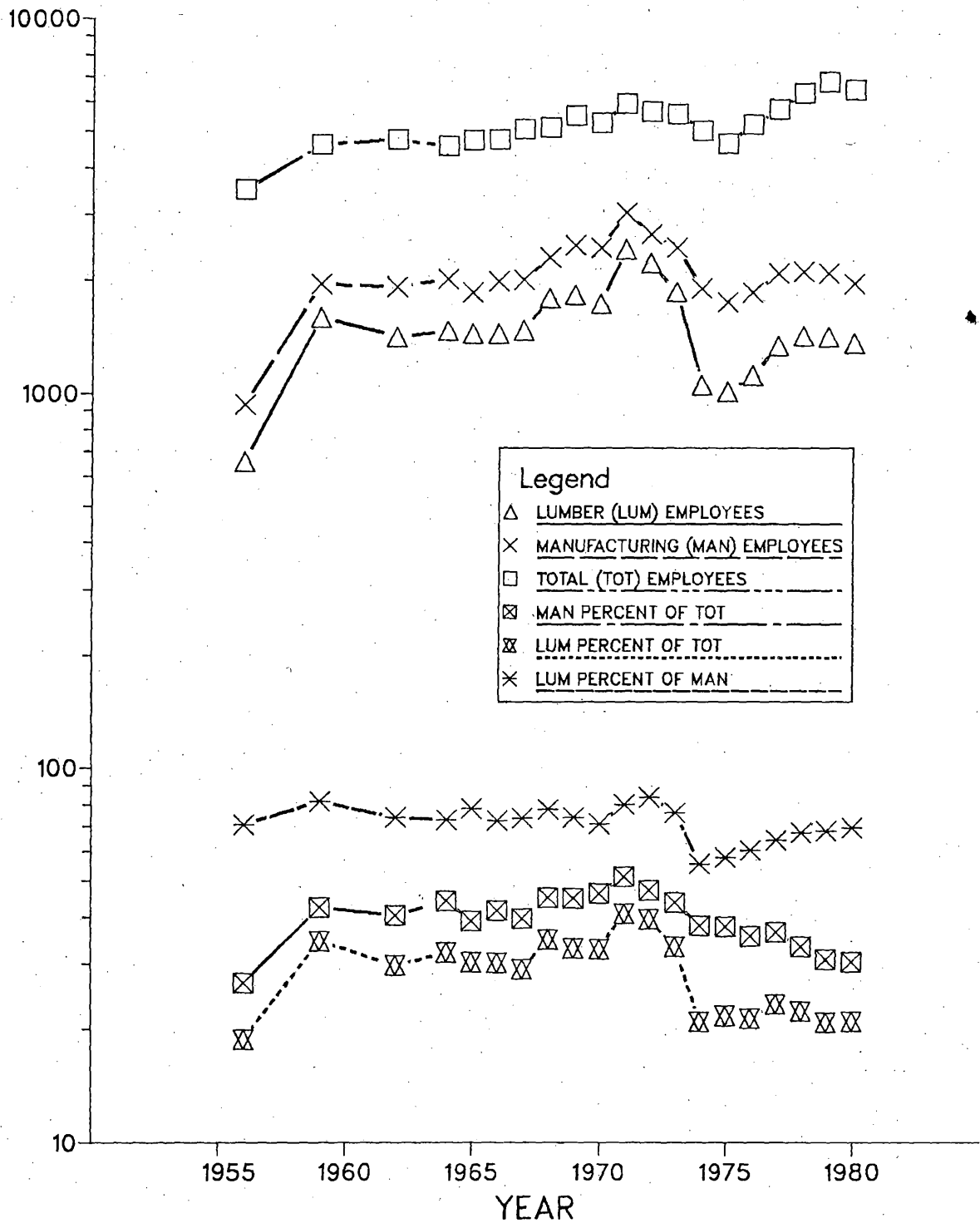
EMPLOYMENT TRENDS IN SISKIYOU COUNTY

Y AXIS LOGARITHMIC SCALE



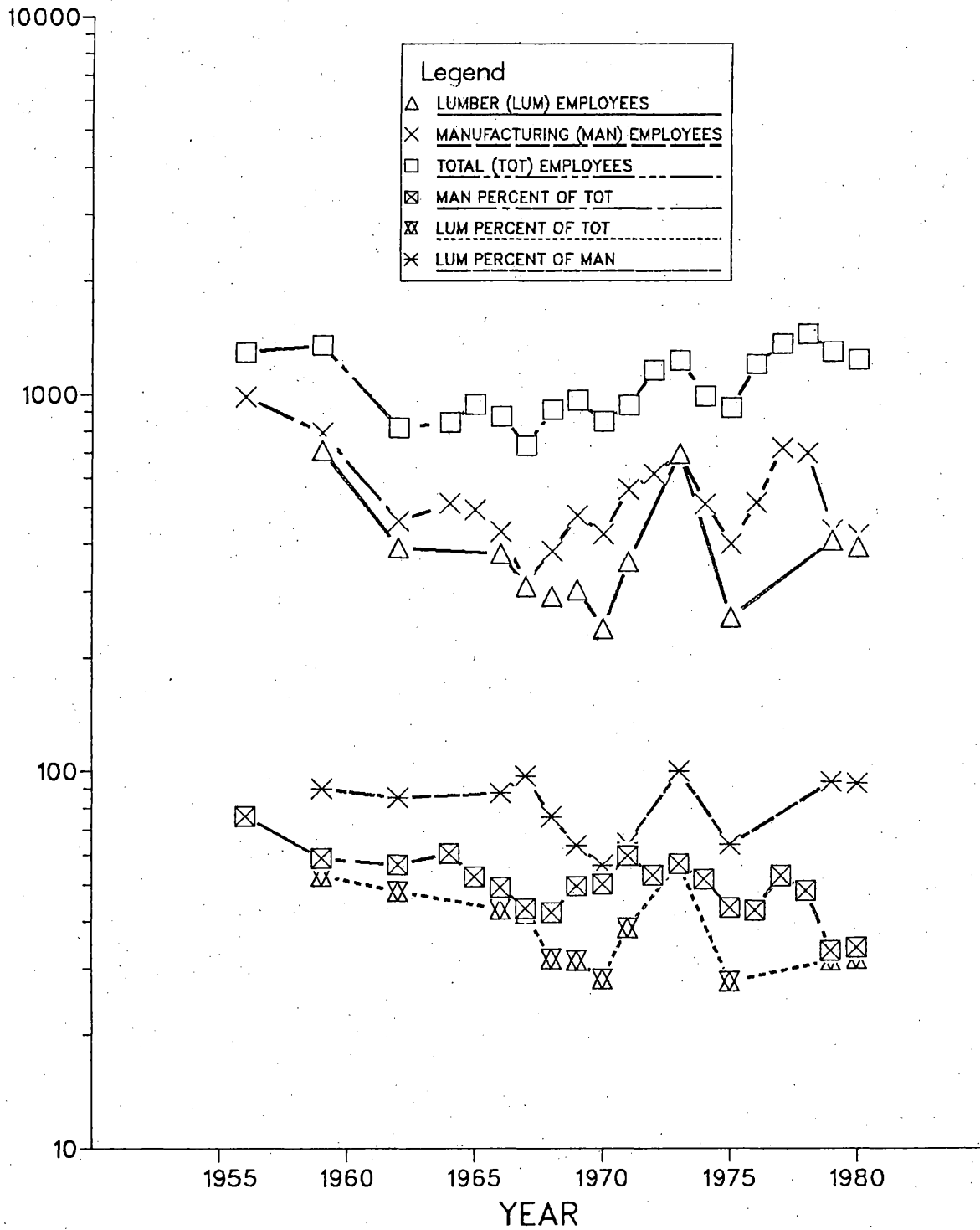
EMPLOYMENT TRENDS IN TEHAMA COUNTY

Y AXIS LOGARITHMIC SCALE



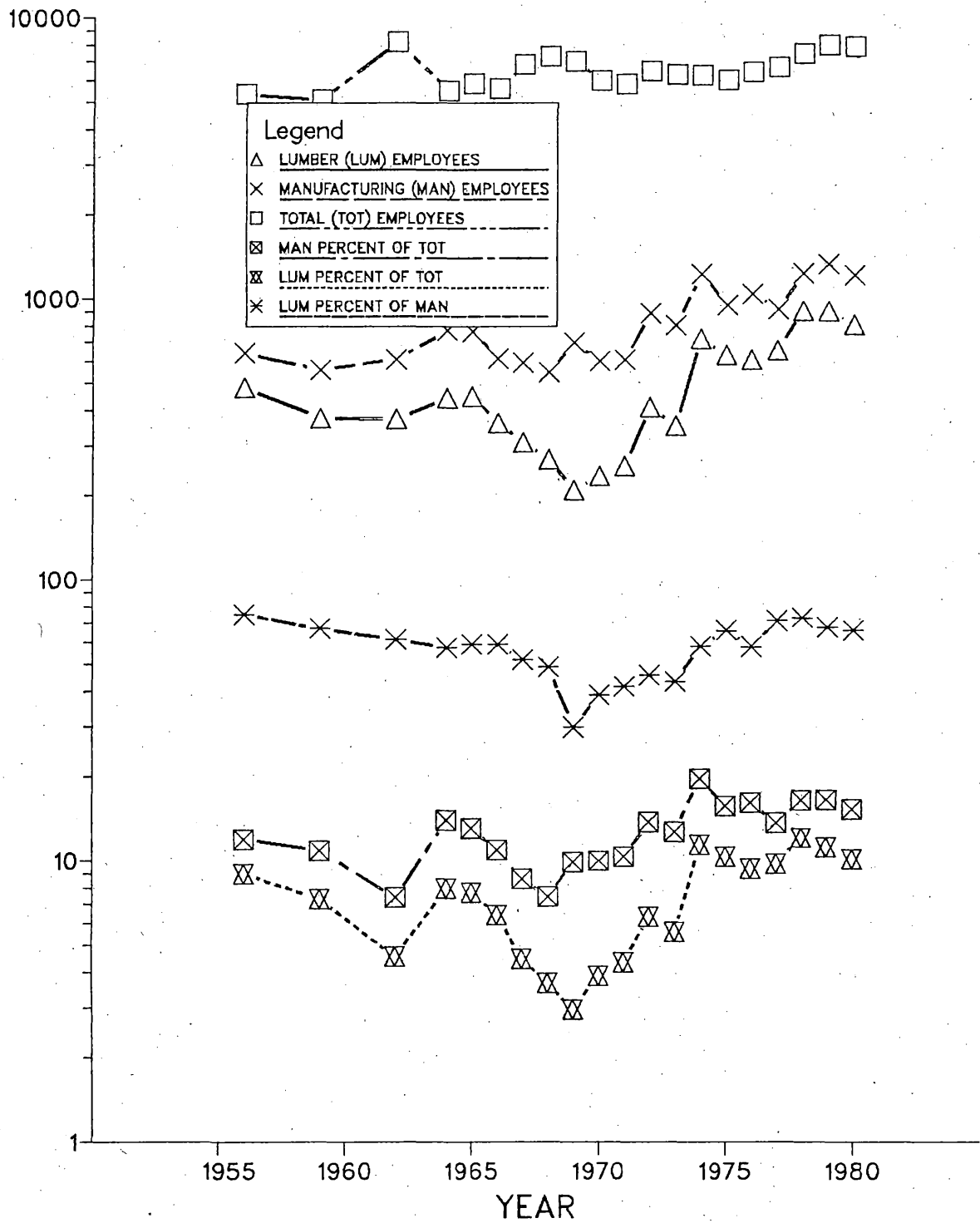
EMPLOYMENT TRENDS IN TRINITY COUNTY

Y AXIS LOGARITHMIC SCALE



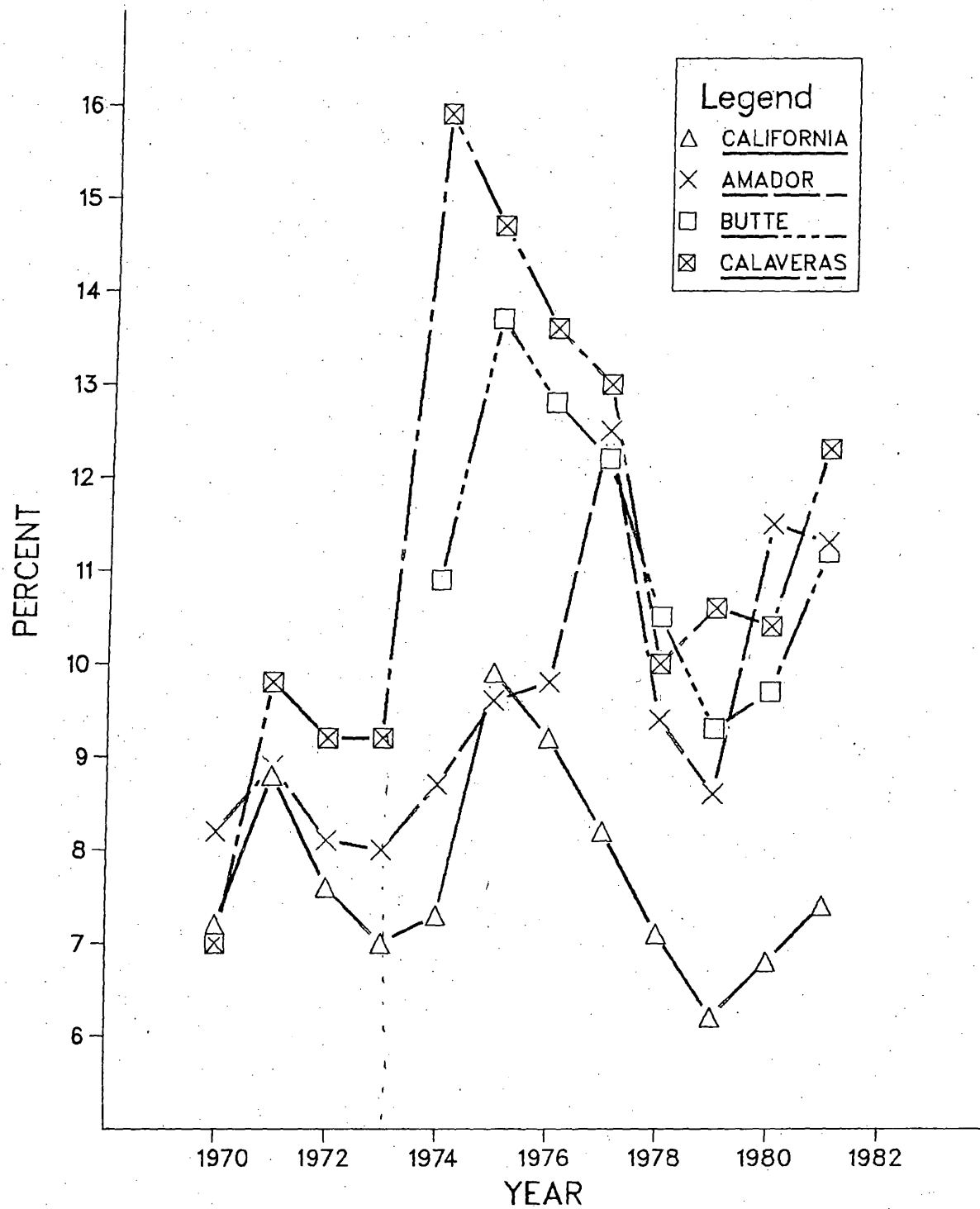
EMPLOYMENT TRENDS IN YUBA COUNTY

Y AXIS LOGARITHMIC SCALE

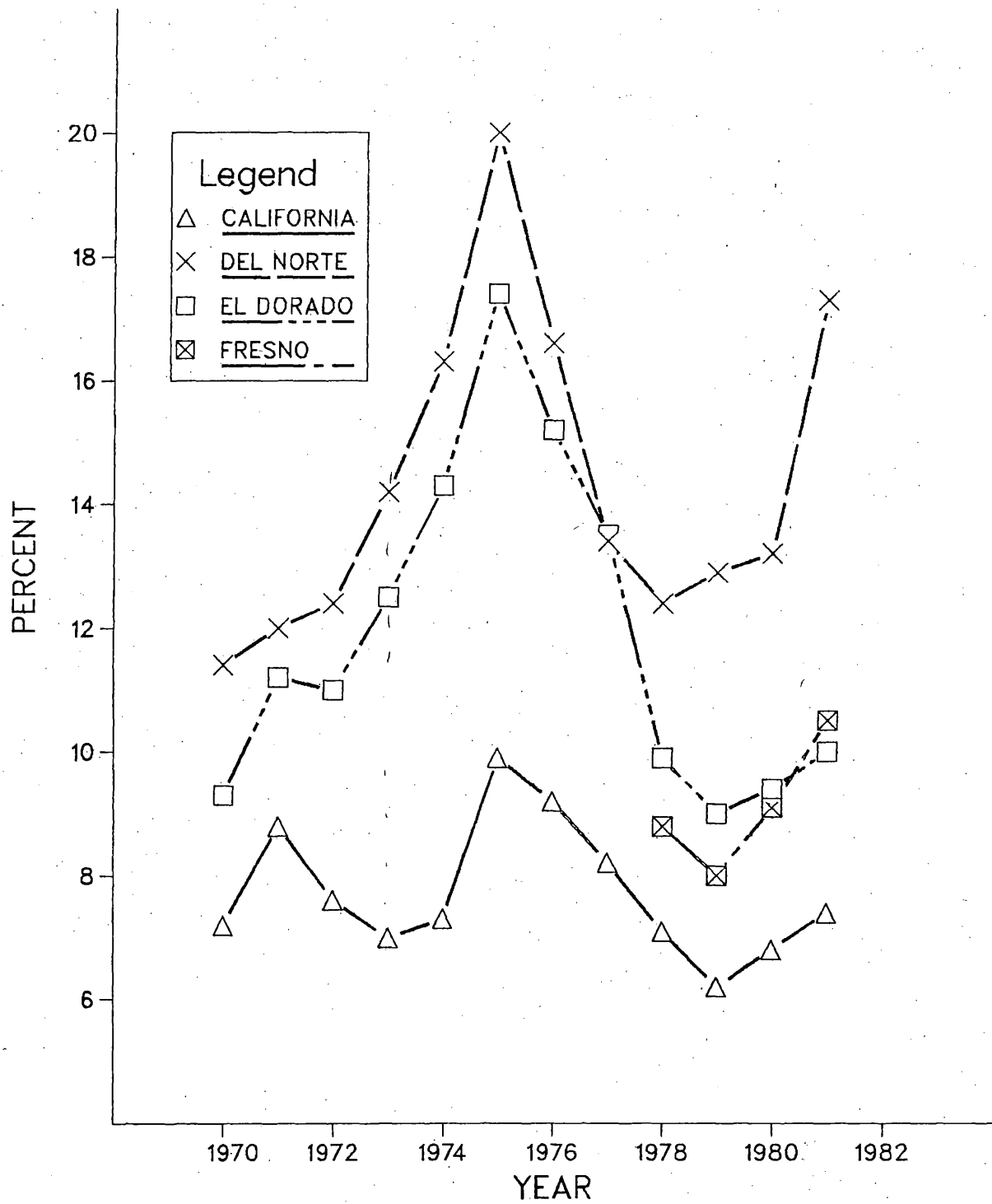


Appendix B: Trends in unemployment rates in
selected counties

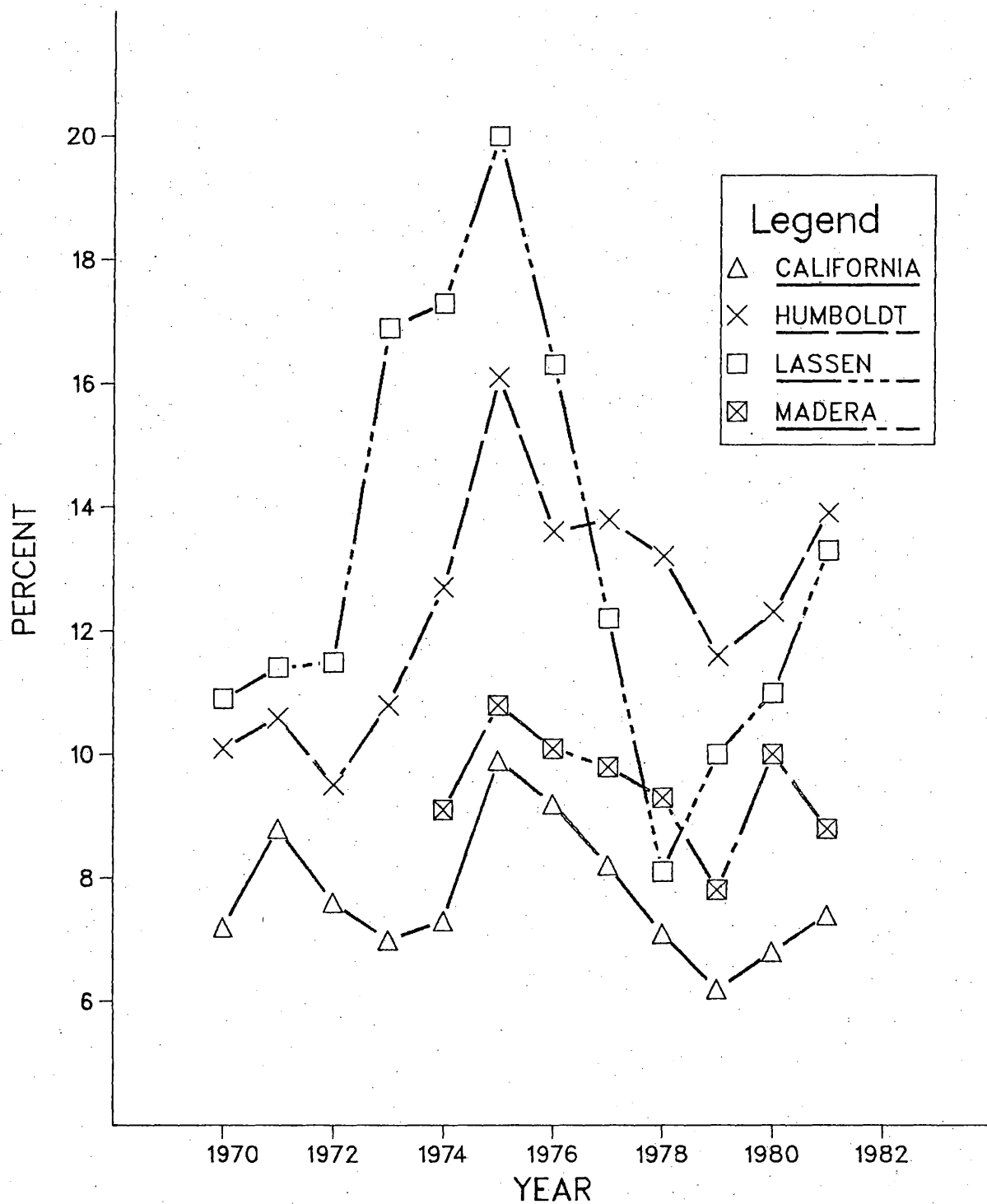
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



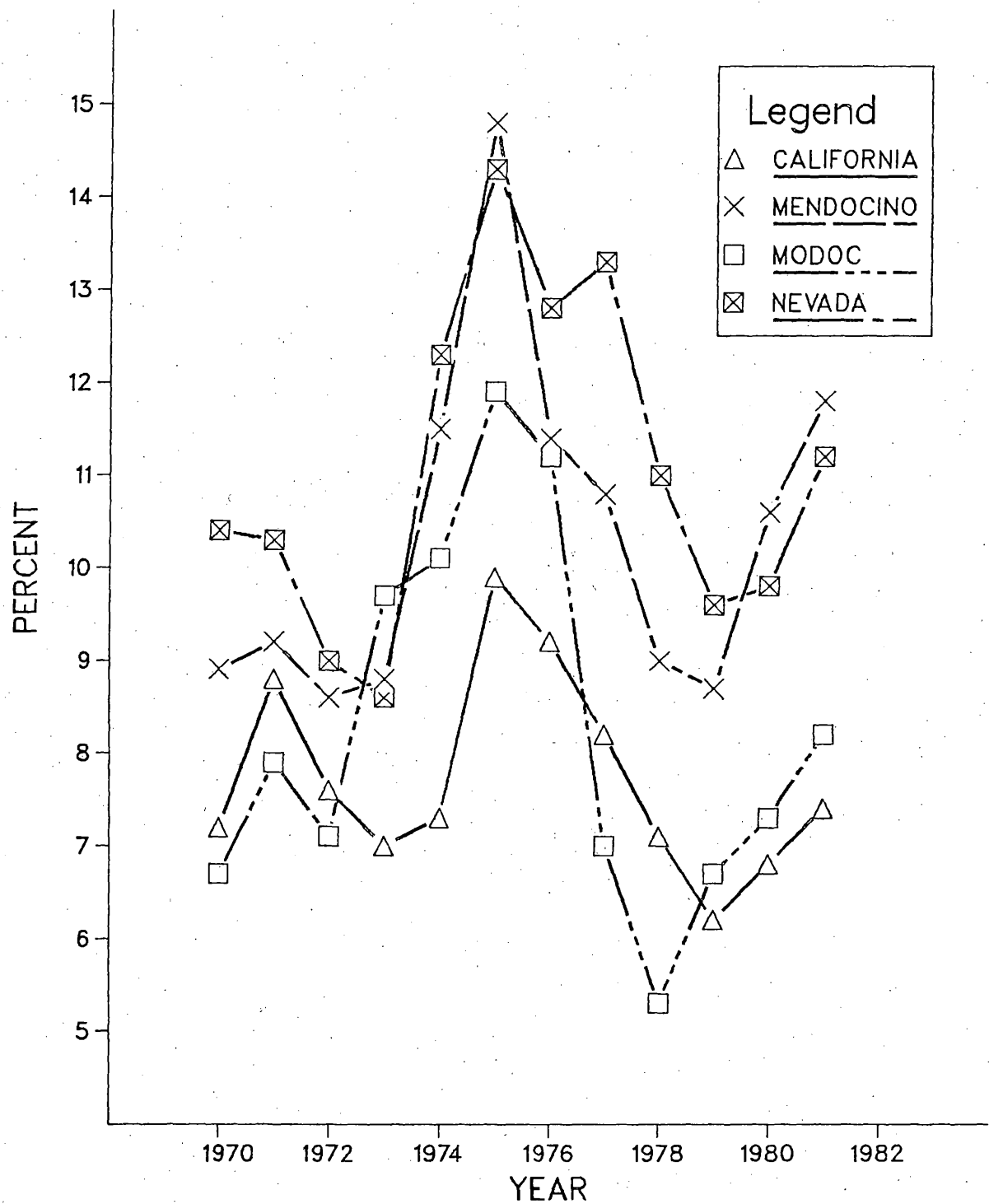
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



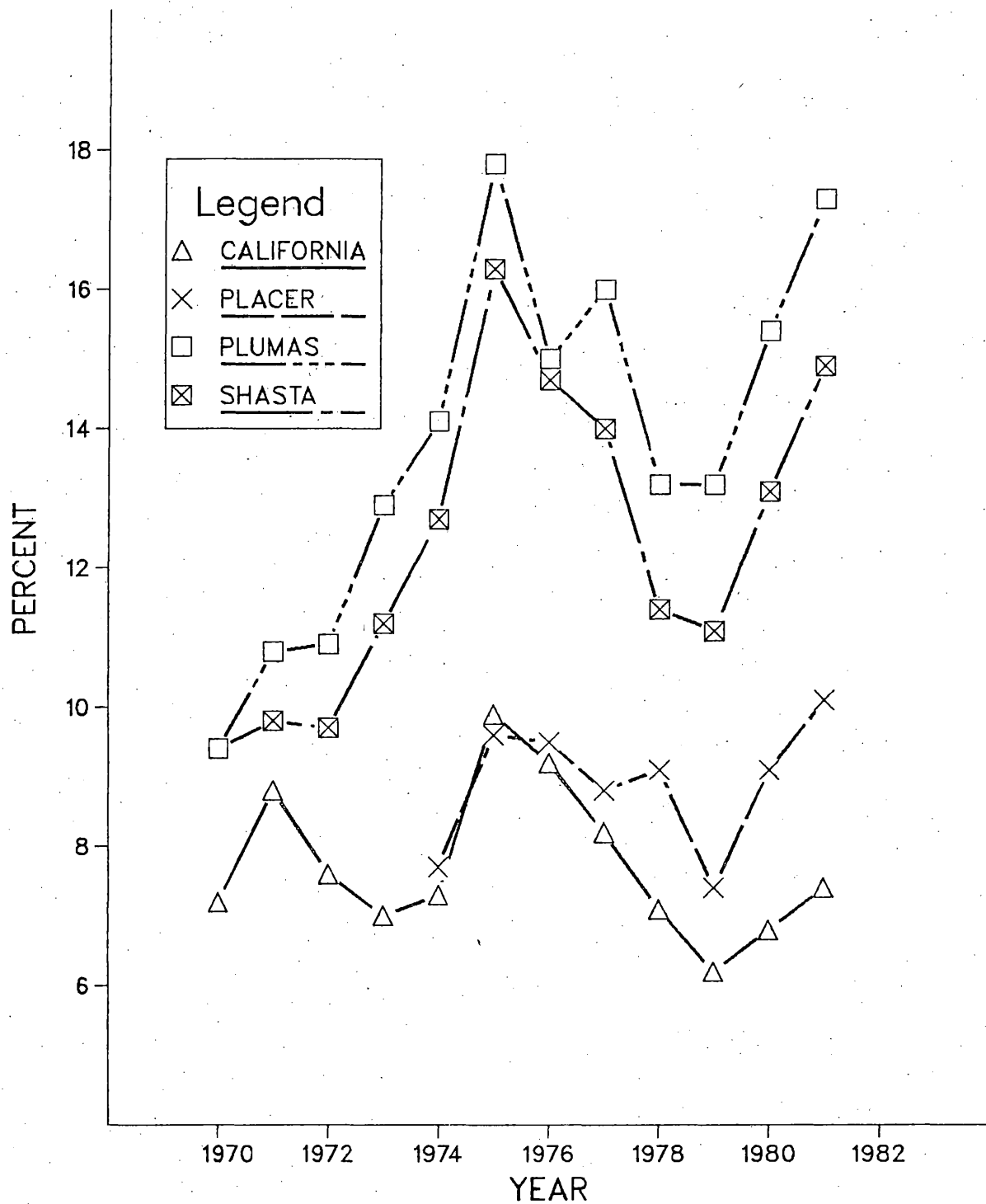
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



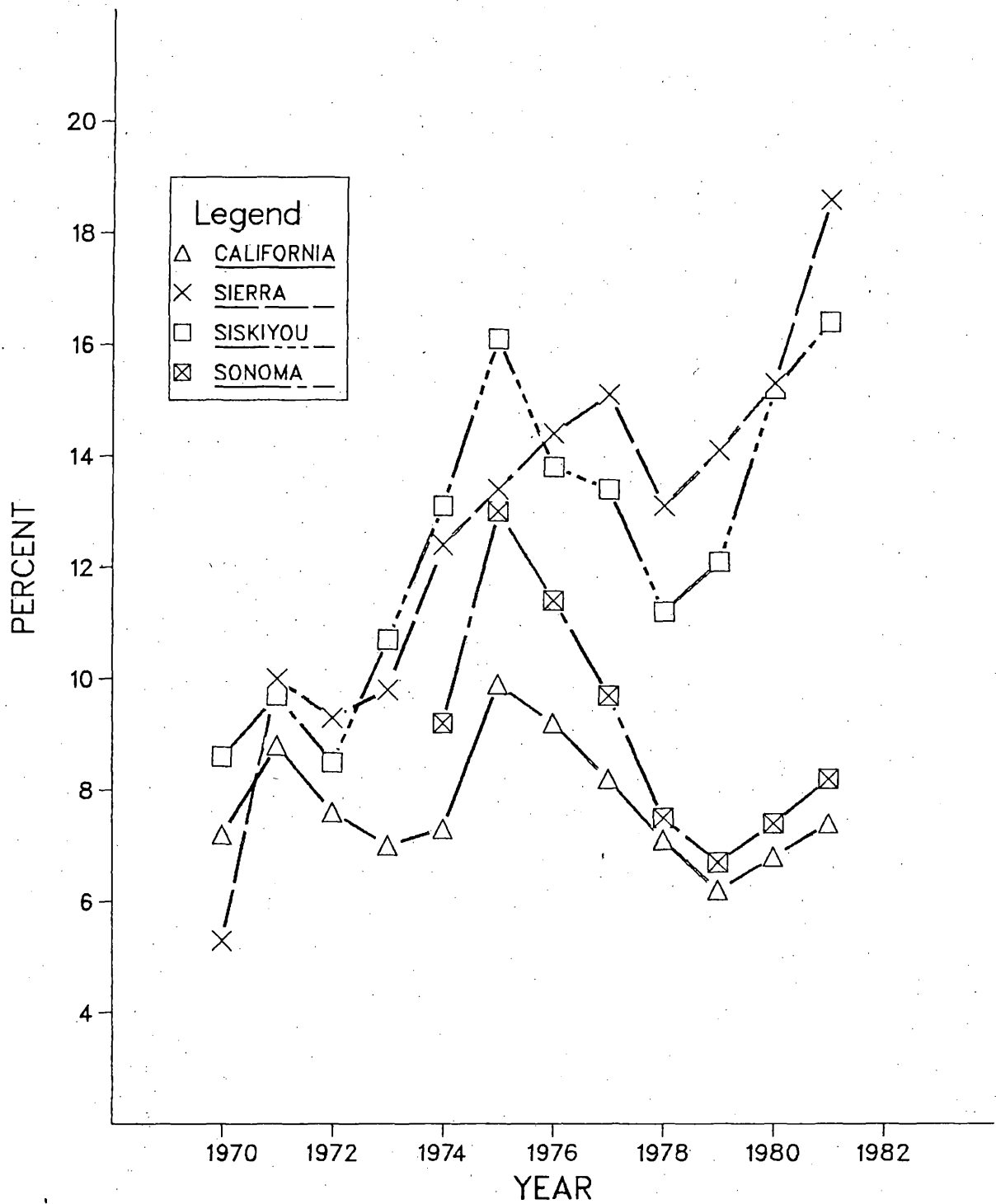
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



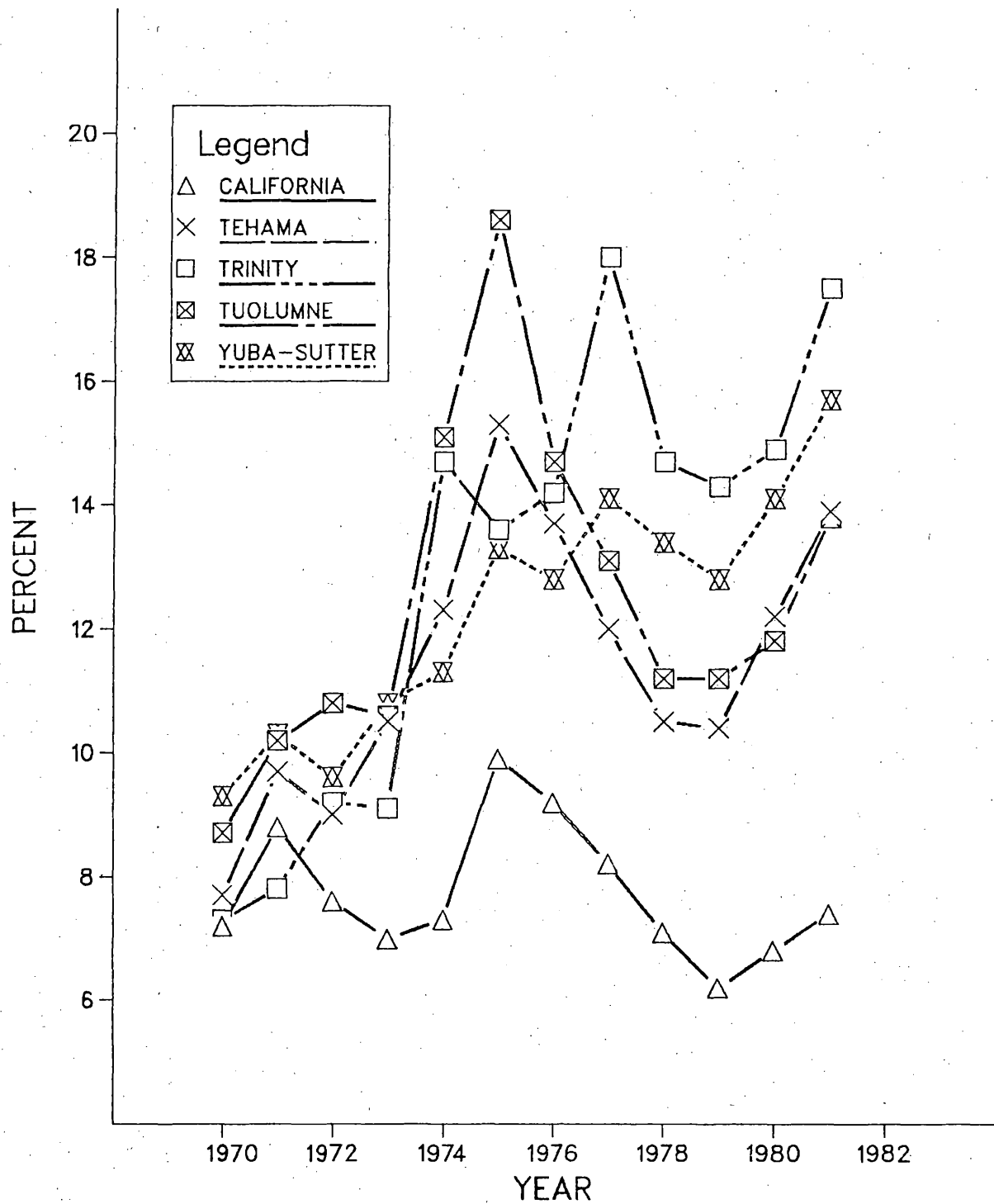
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



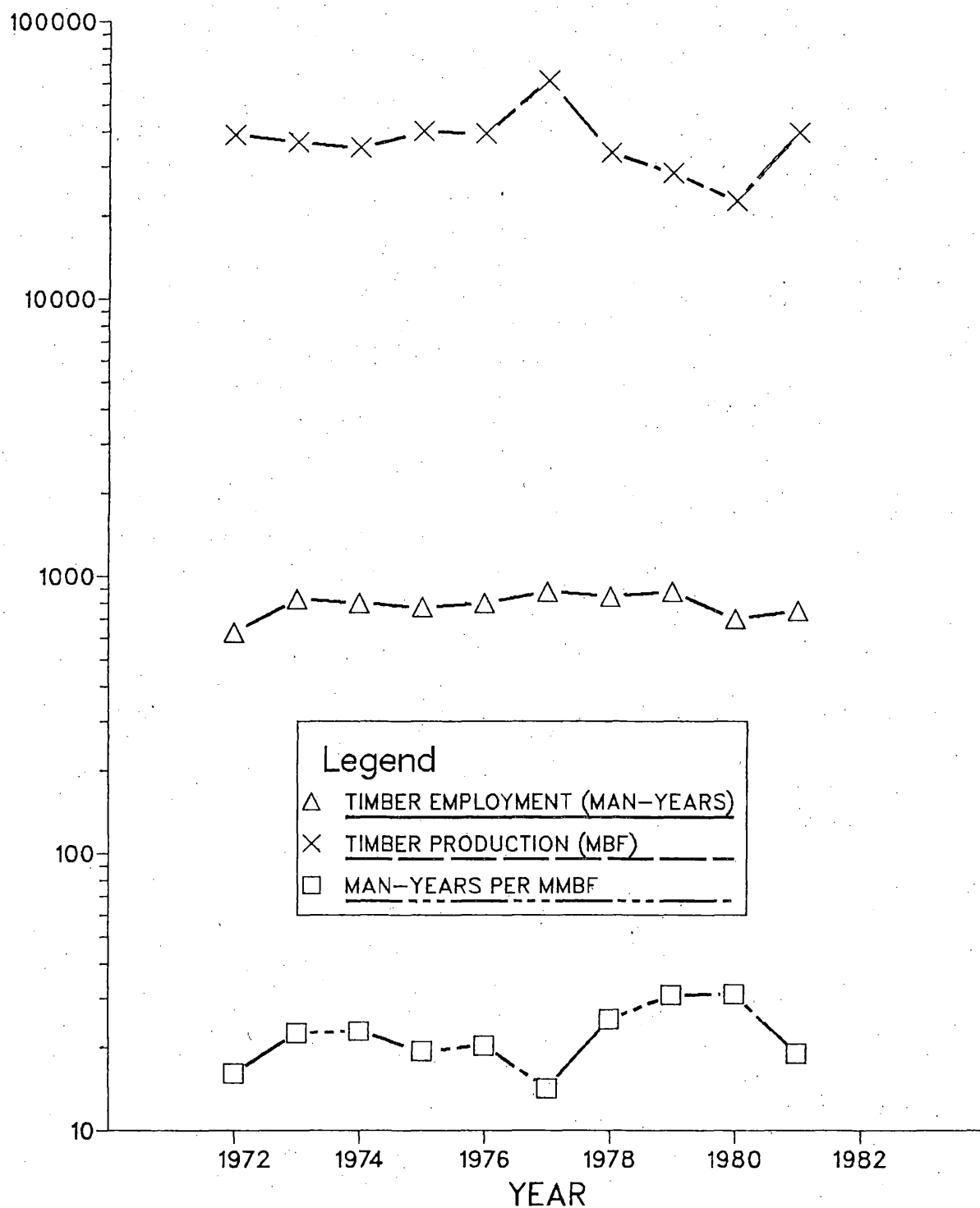
UNEMPLOYMENT RATES IN CALIFORNIA AND SELECTED COUNTIES



Appendix C: Trends in timber production and employment

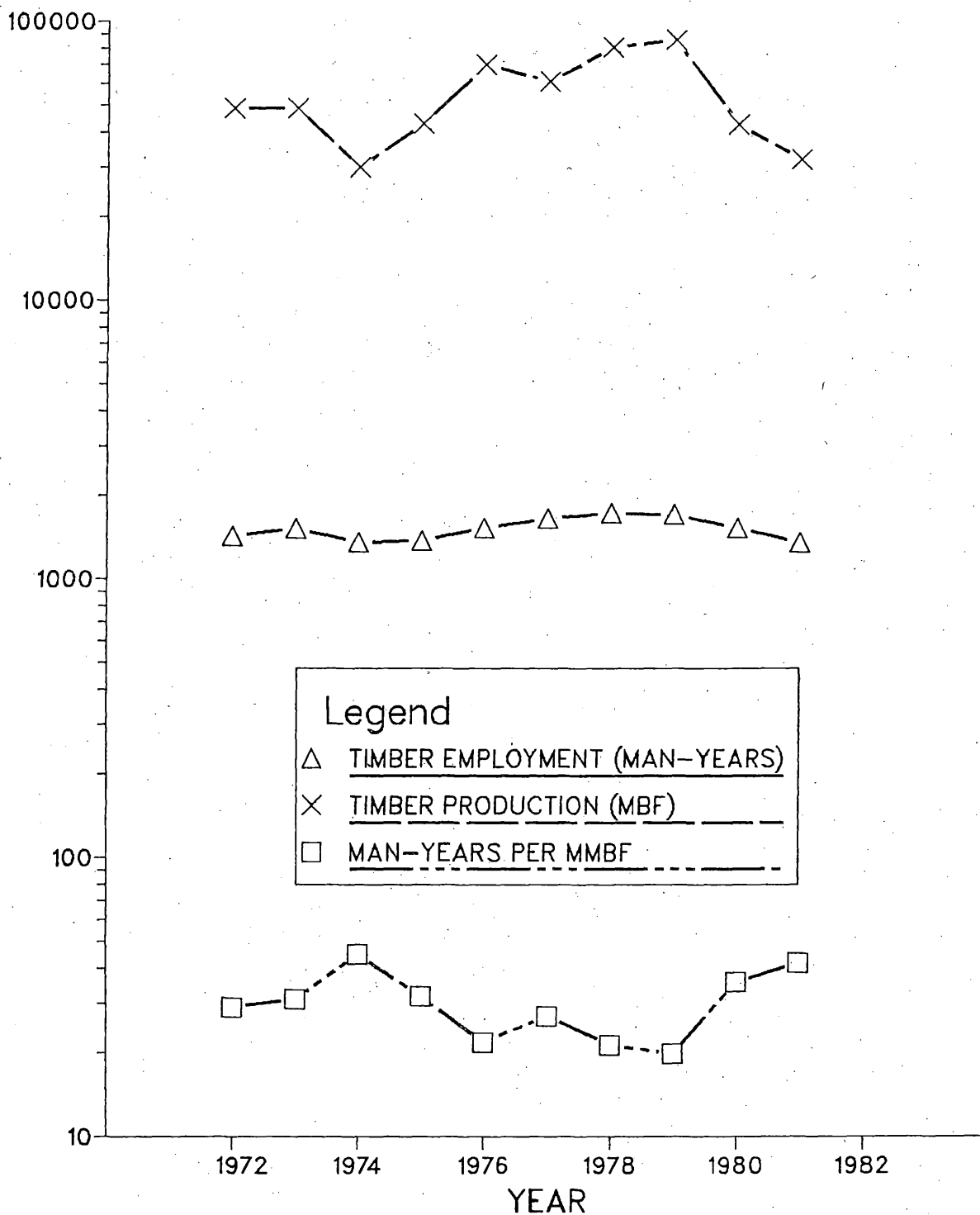
TIMBER PRODUCTION AND EMPLOYMENT AMADOR COUNTY

Y AXIS LOGARITHMIC SCALE



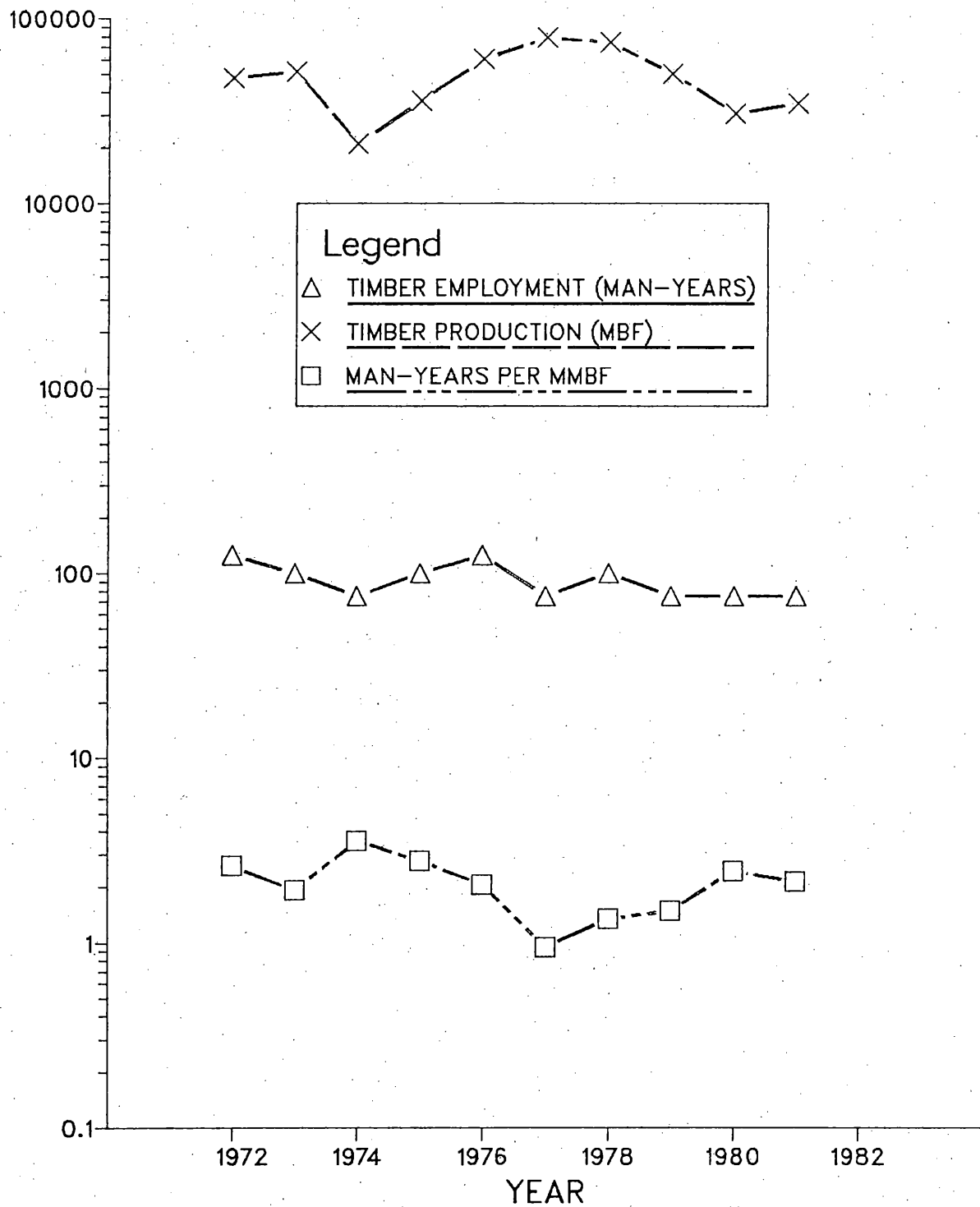
TIMBER PRODUCTION AND EMPLOYMENT BUTTE COUNTY

Y AXIS LOGARITHMIC SCALE



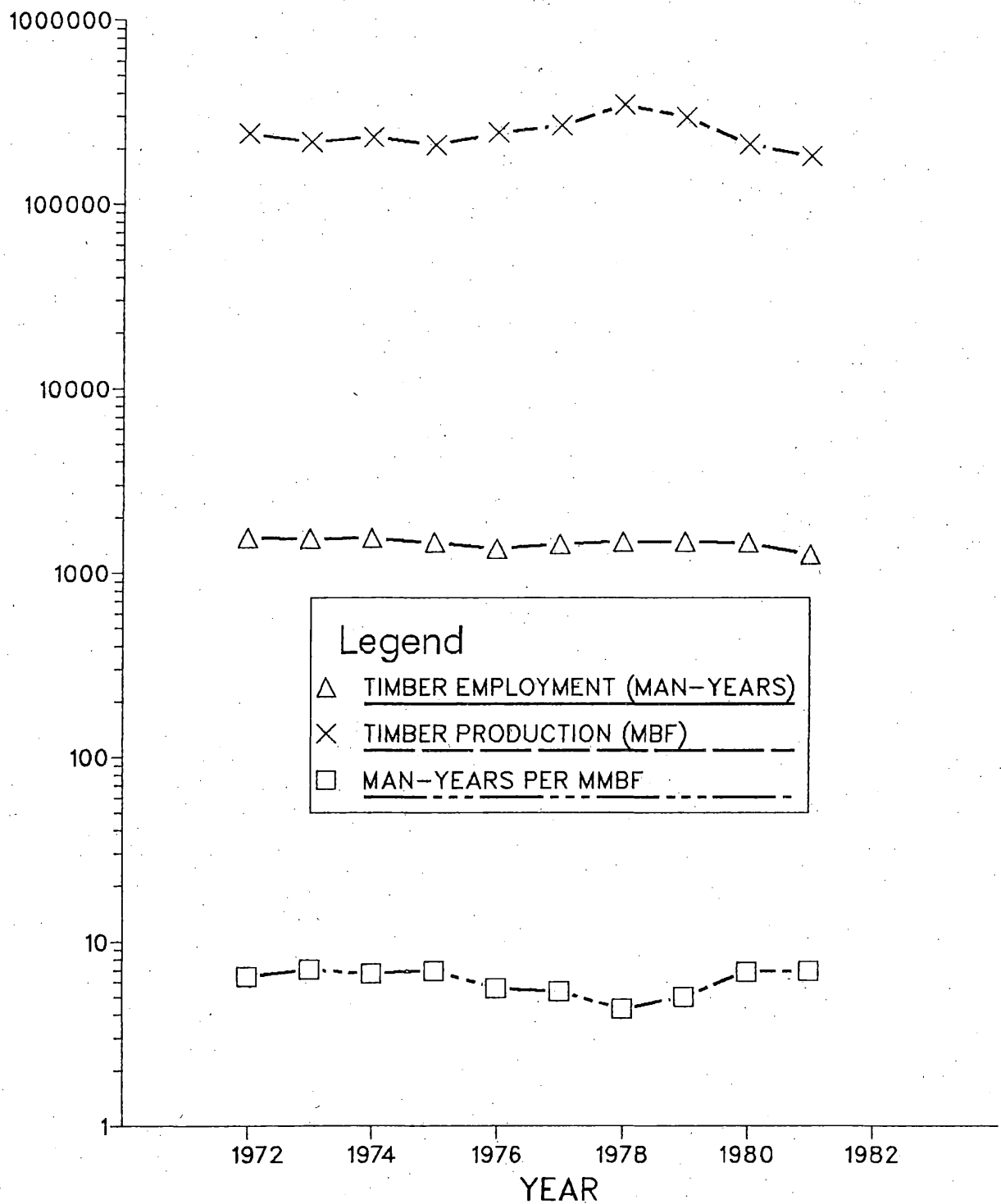
TIMBER PRODUCTION AND EMPLOYMENT CALAVERAS COUNTY

Y AXIS LOGARITHMIC SCALE



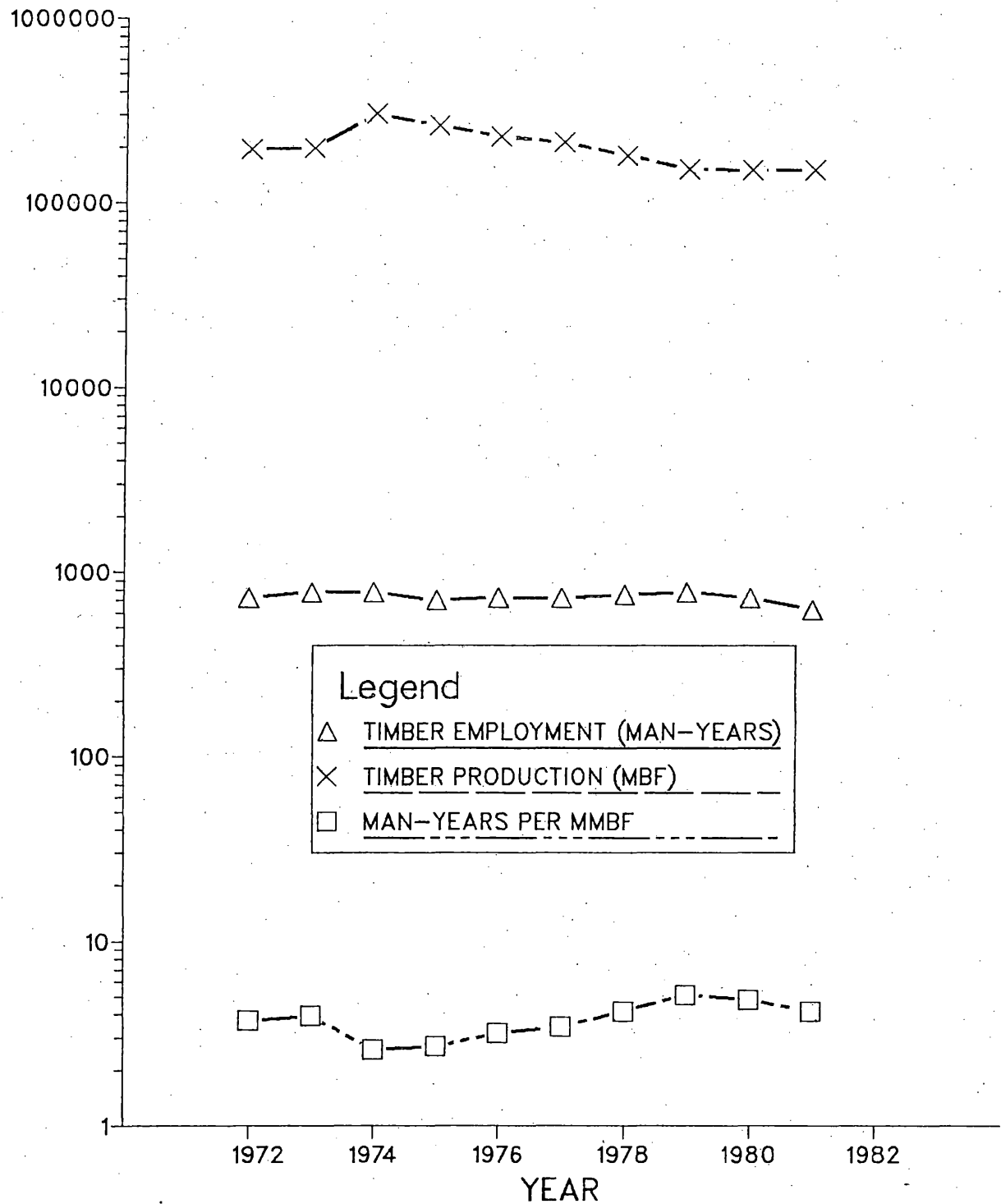
TIMBER PRODUCTION AND EMPLOYMENT DEL NORTE COUNTY

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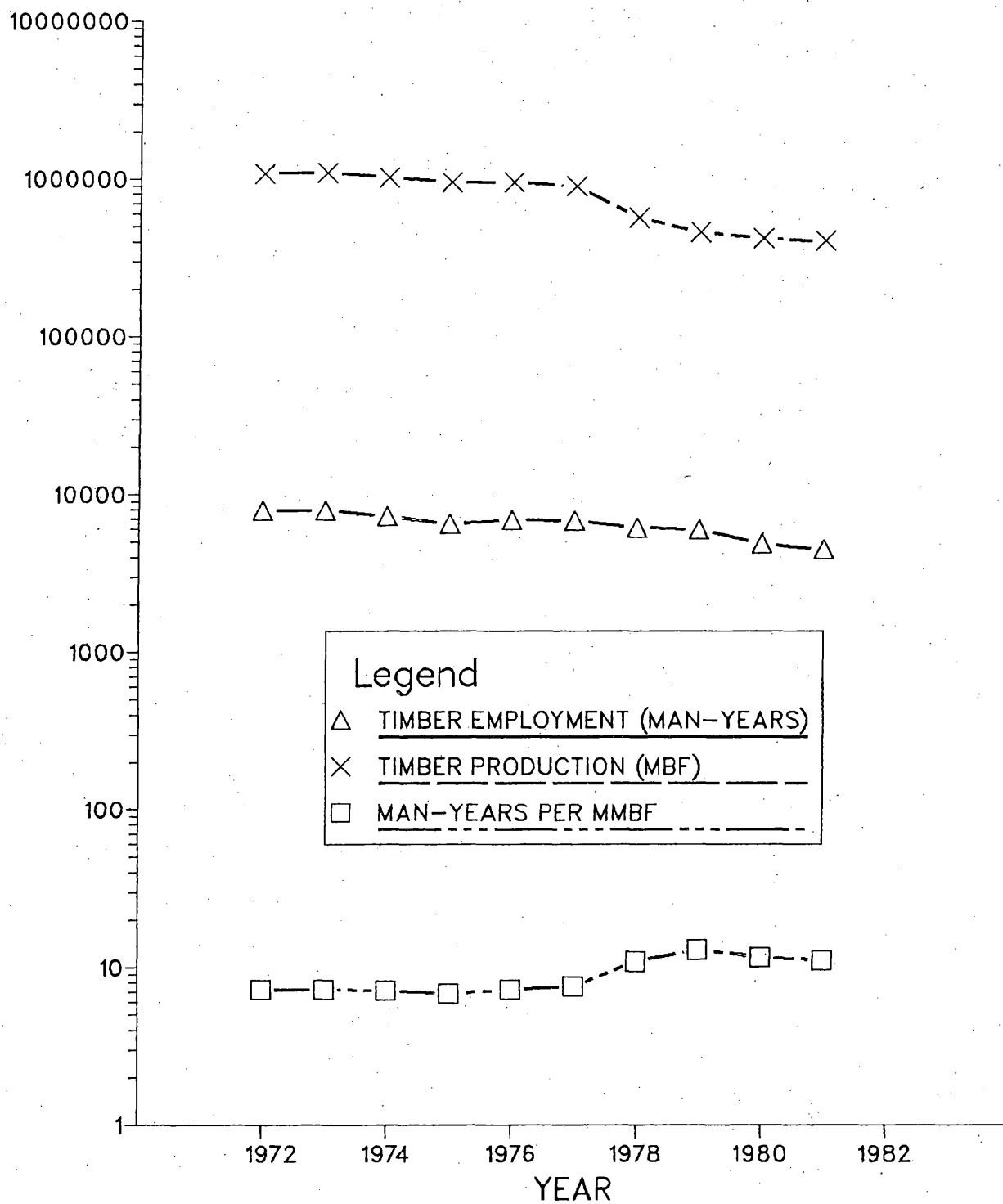
TIMBER PRODUCTION AND EMPLOYMENT EL DORADO COUNTY

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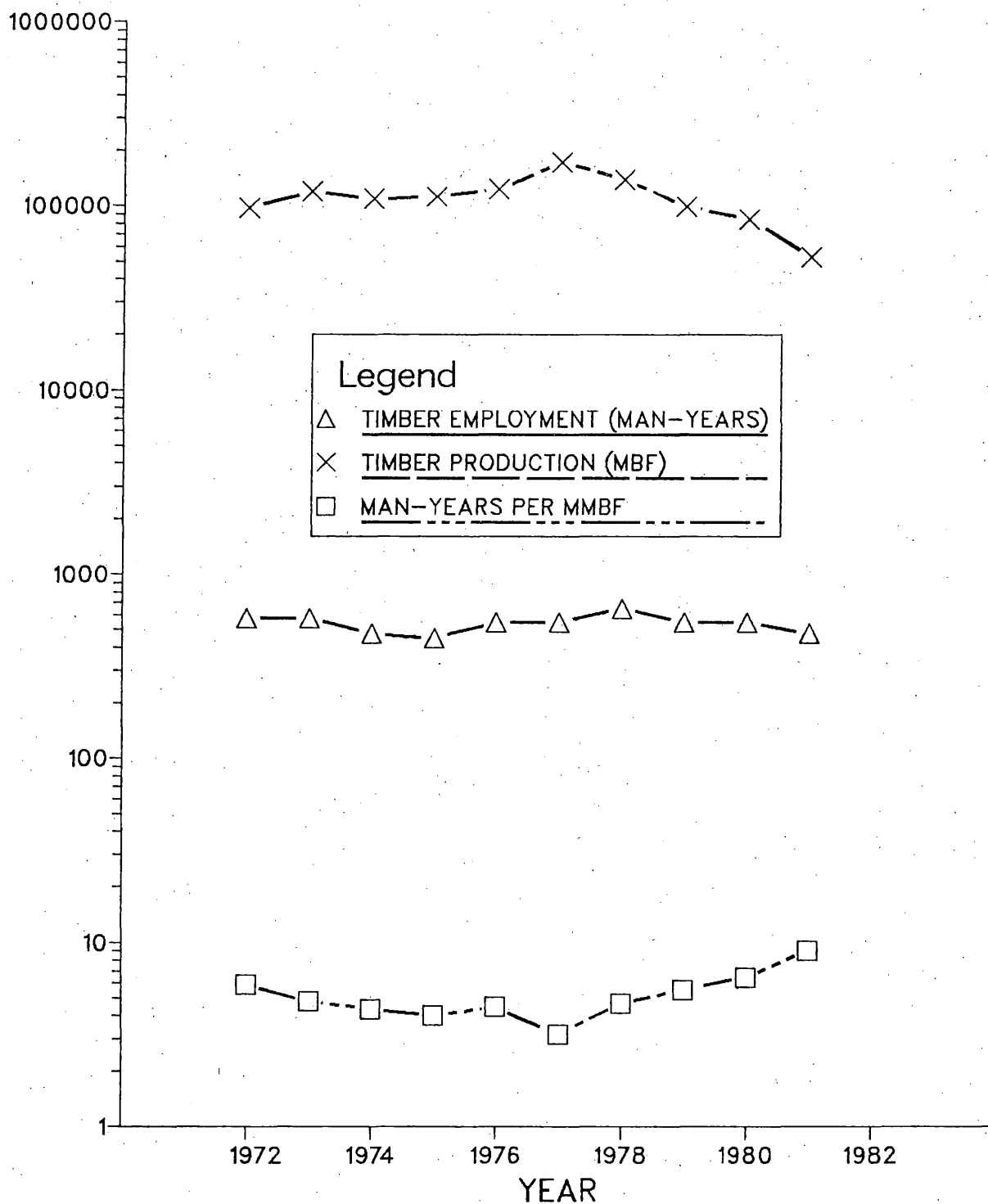
TIMBER PRODUCTION AND EMPLOYMENT HUMBOLDT COUNTY

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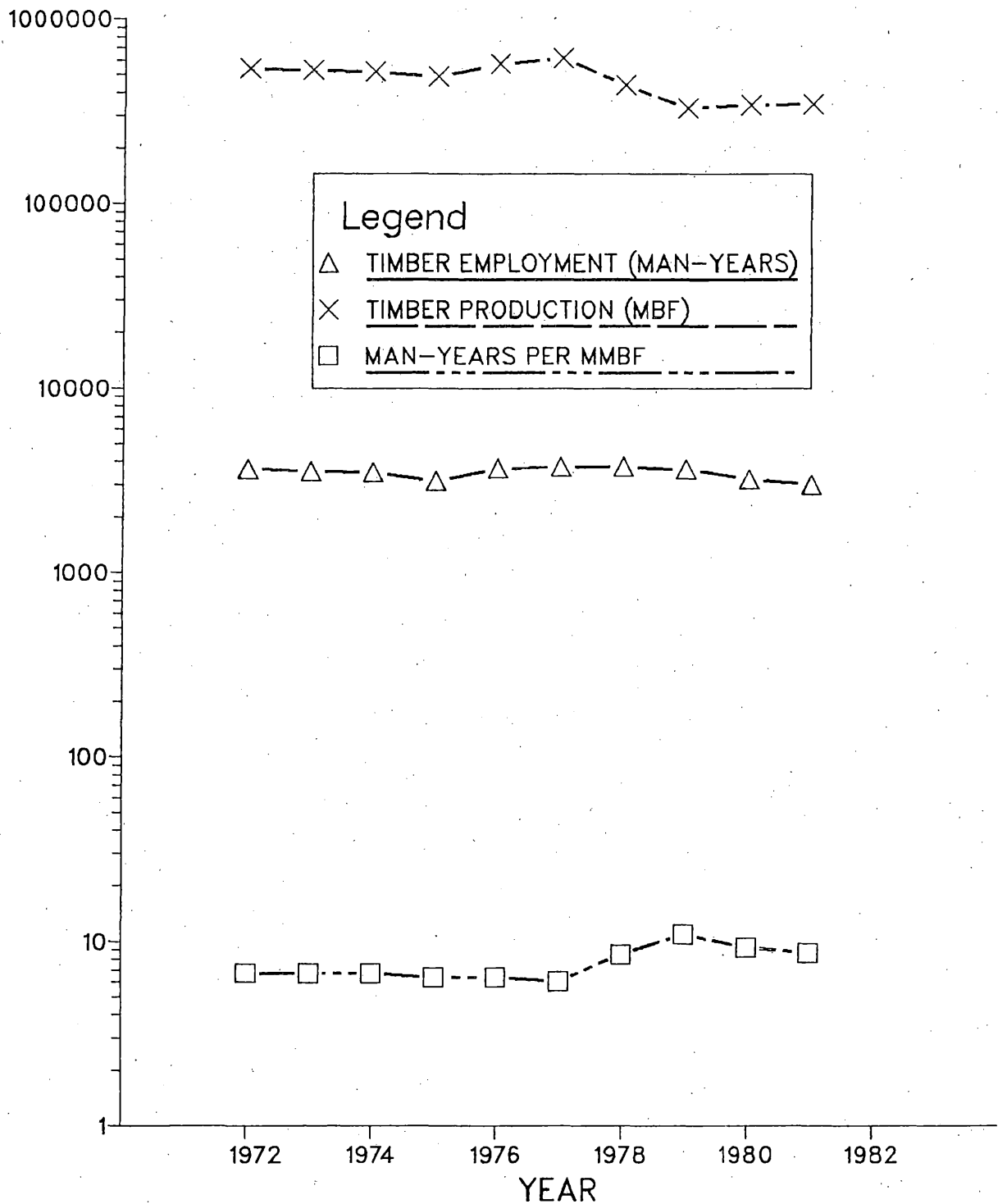
TIMBER PRODUCTION AND EMPLOYMENT LASSEN COUNTY

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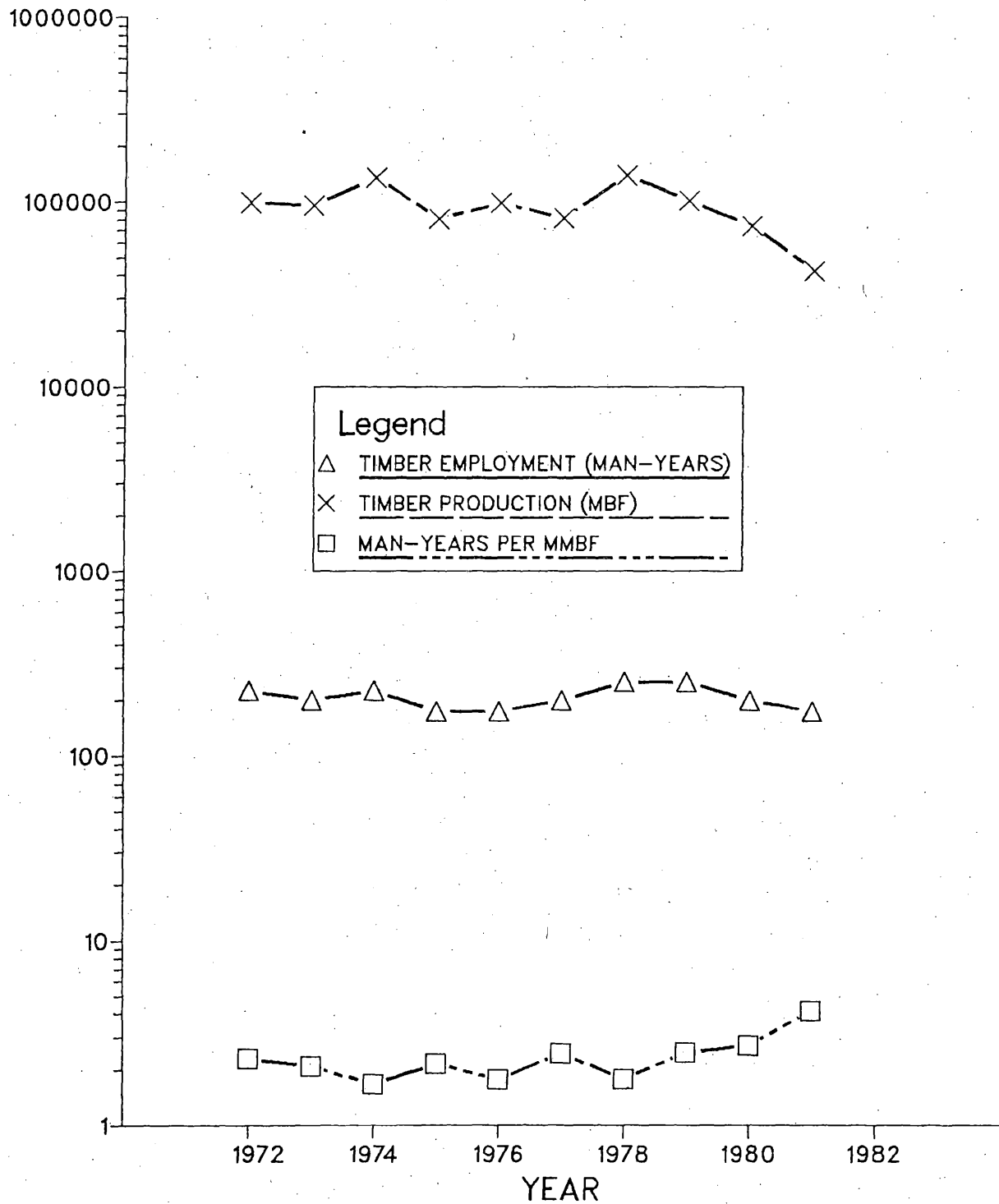
TIMBER PRODUCTION AND EMPLOYMENT MENDOCINO COUNTY

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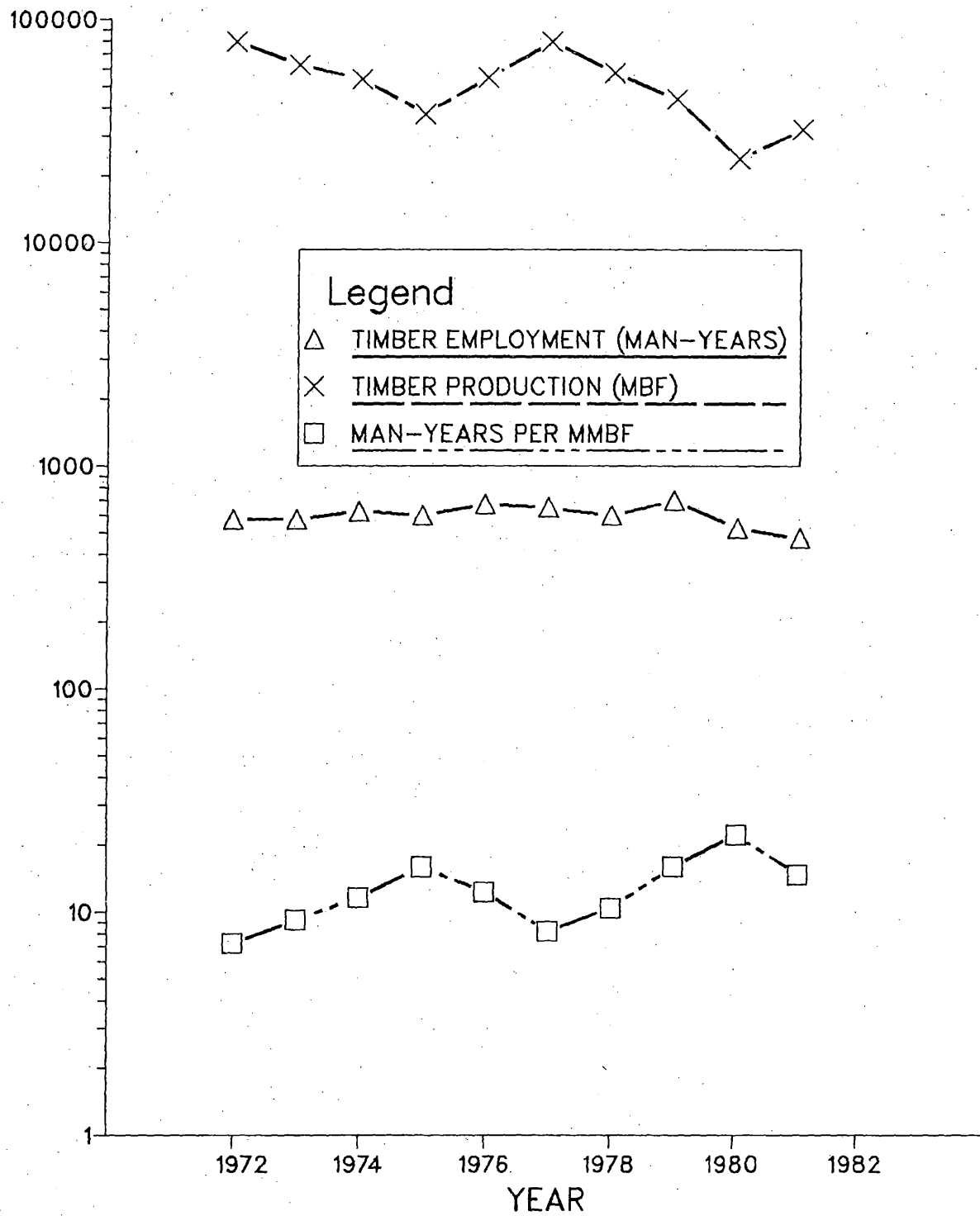
TIMBER PRODUCTION AND EMPLOYMENT MODOC COUNTY

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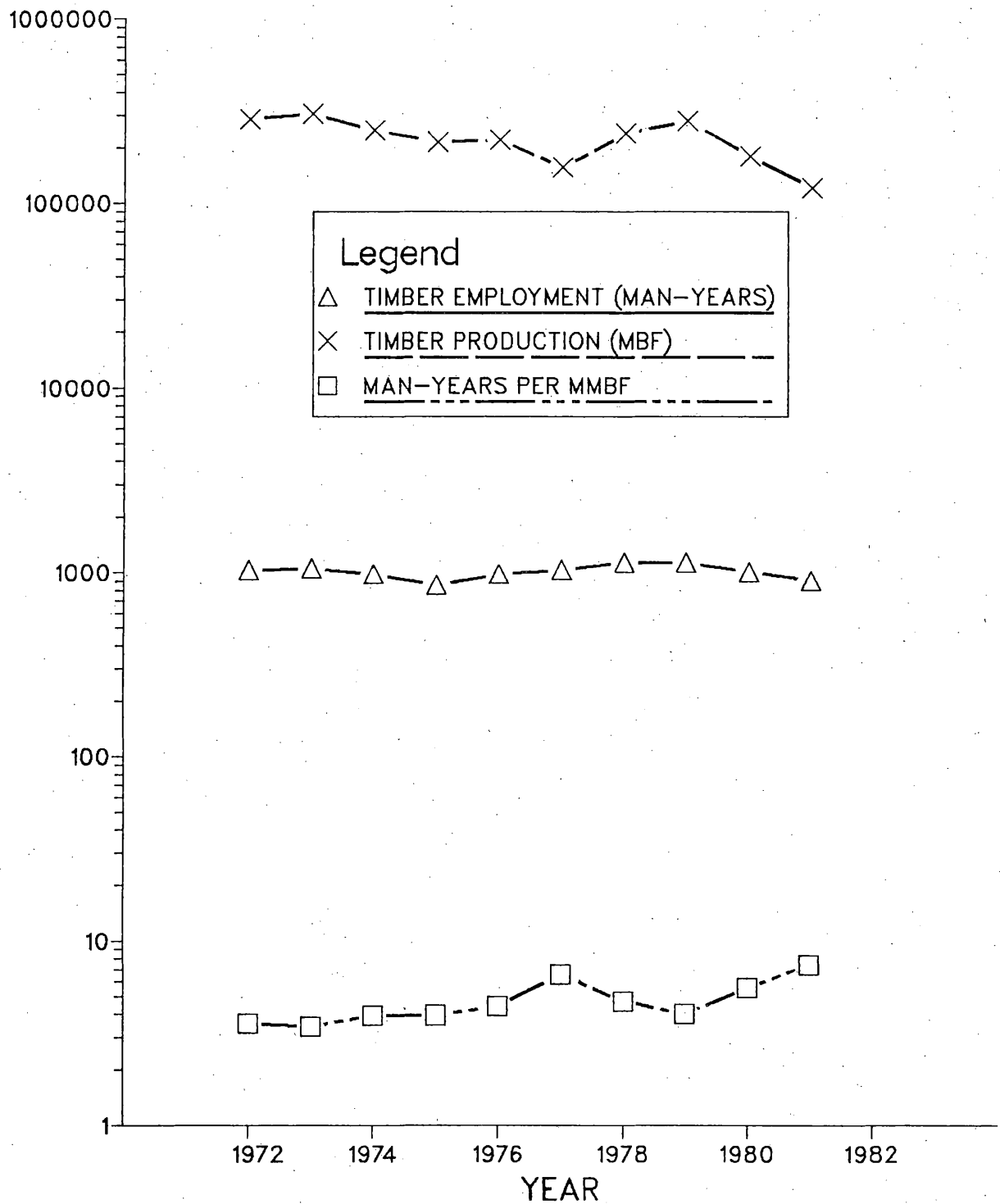
TIMBER PRODUCTION AND EMPLOYMENT NEVADA COUNTY

Y AXIS LOGARITHMIC SCALE



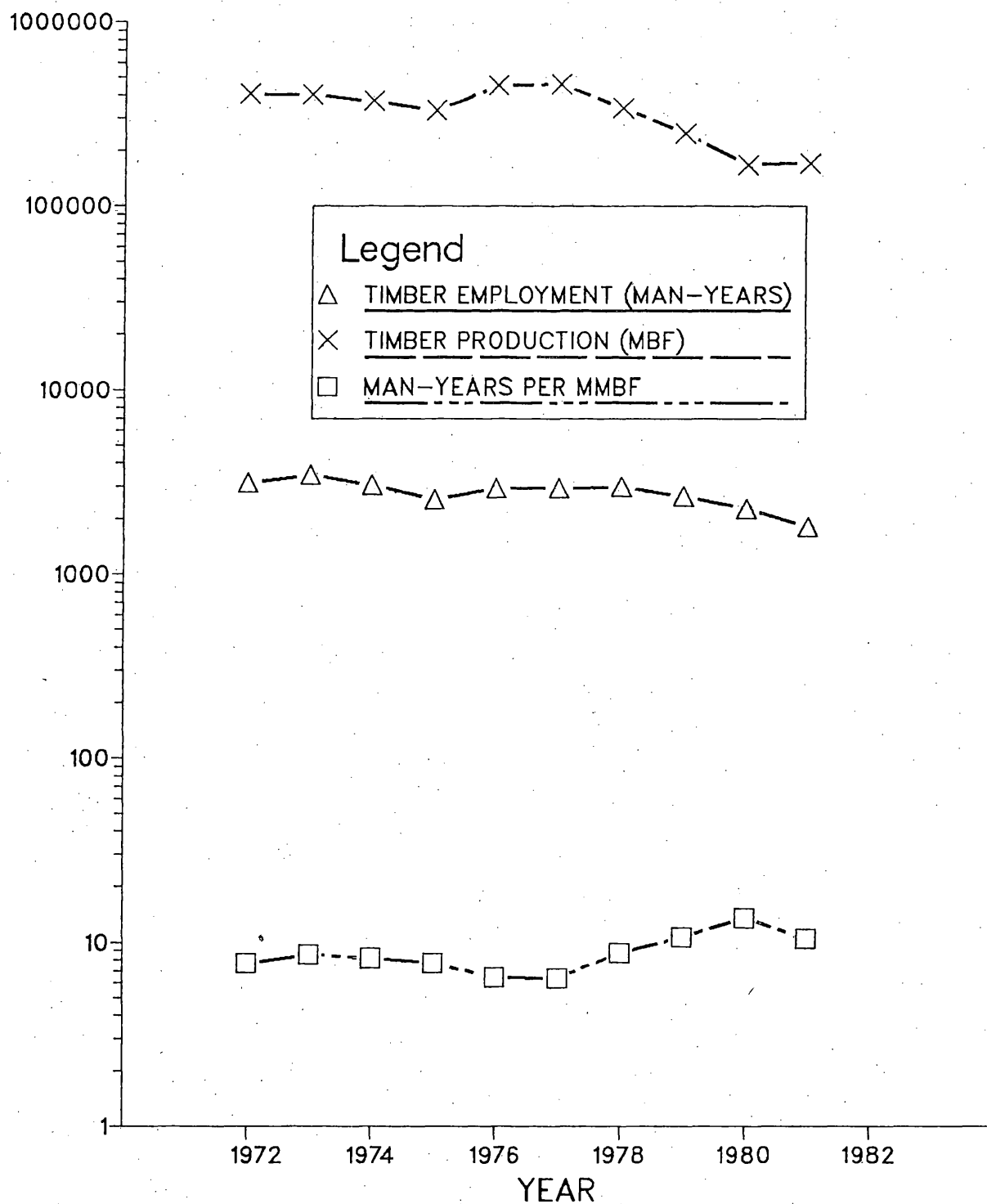
TIMBER PRODUCTION AND EMPLOYMENT PLUMAS COUNTY

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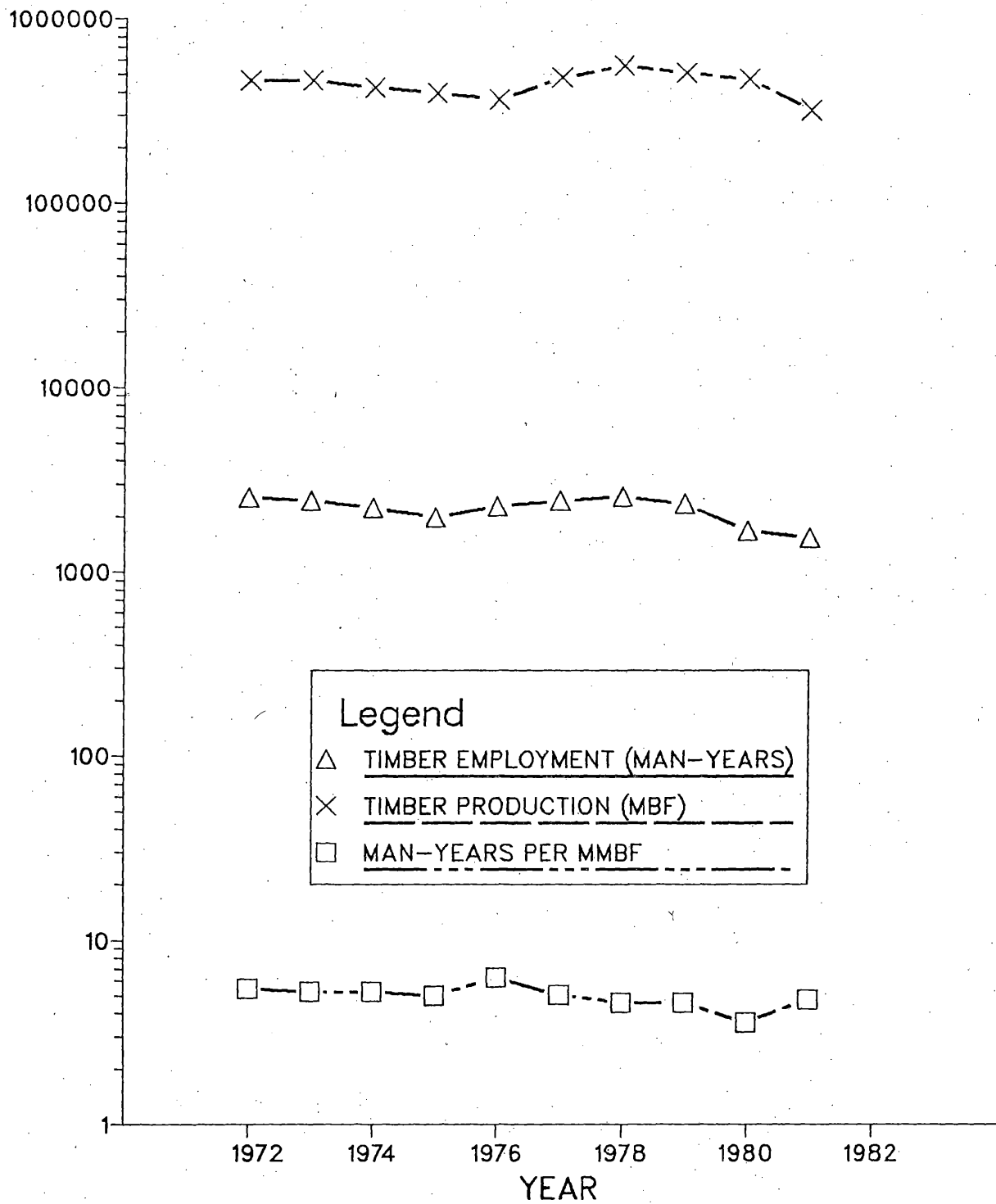
TIMBER PRODUCTION AND EMPLOYMENT SHASTA COUNTY

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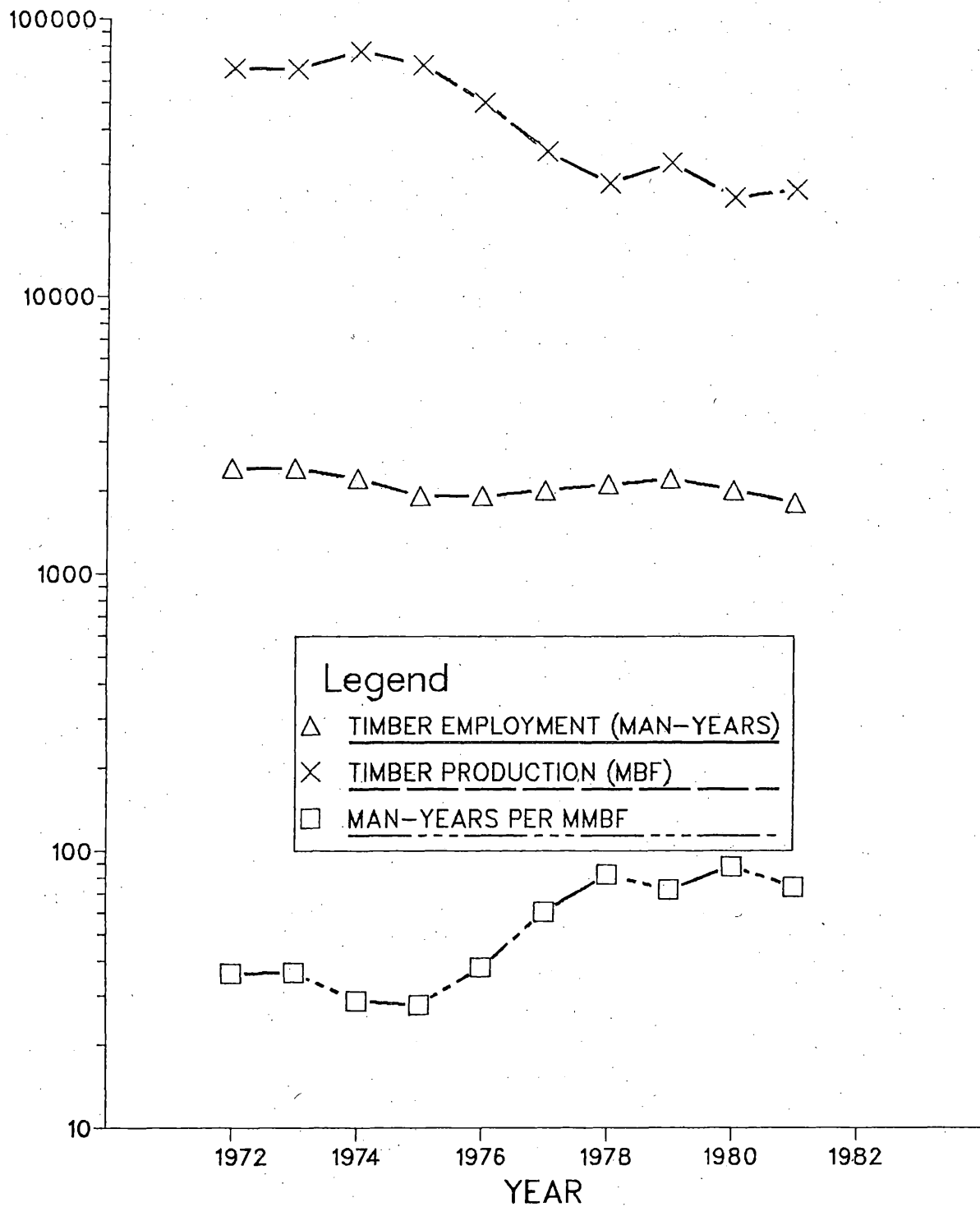
TIMBER PRODUCTION AND EMPLOYMENT SISKIYOU COUNTY

Y AXIS LOGARITHMIC SCALE



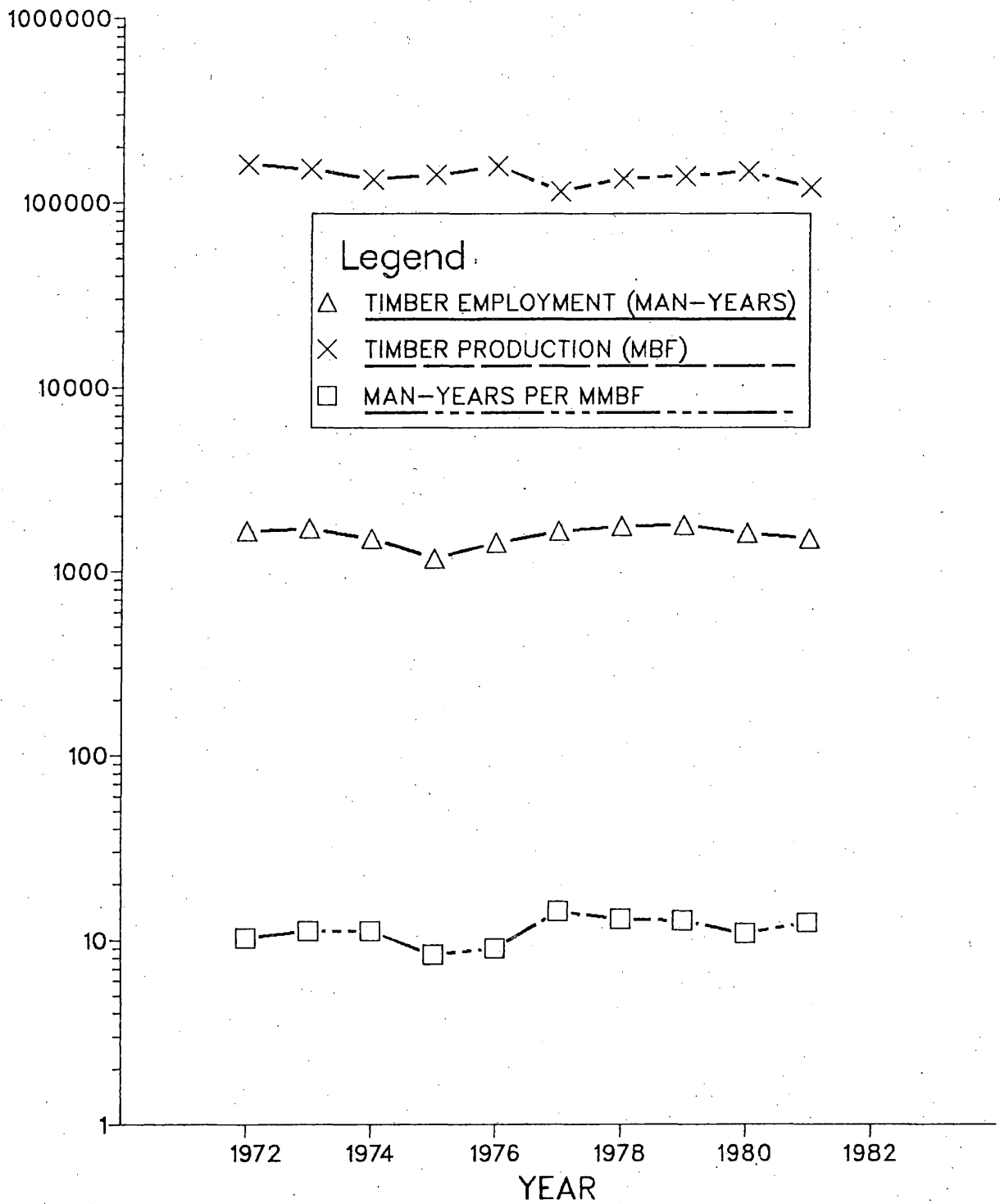
TIMBER PRODUCTION AND EMPLOYMENT SONOMA COUNTY

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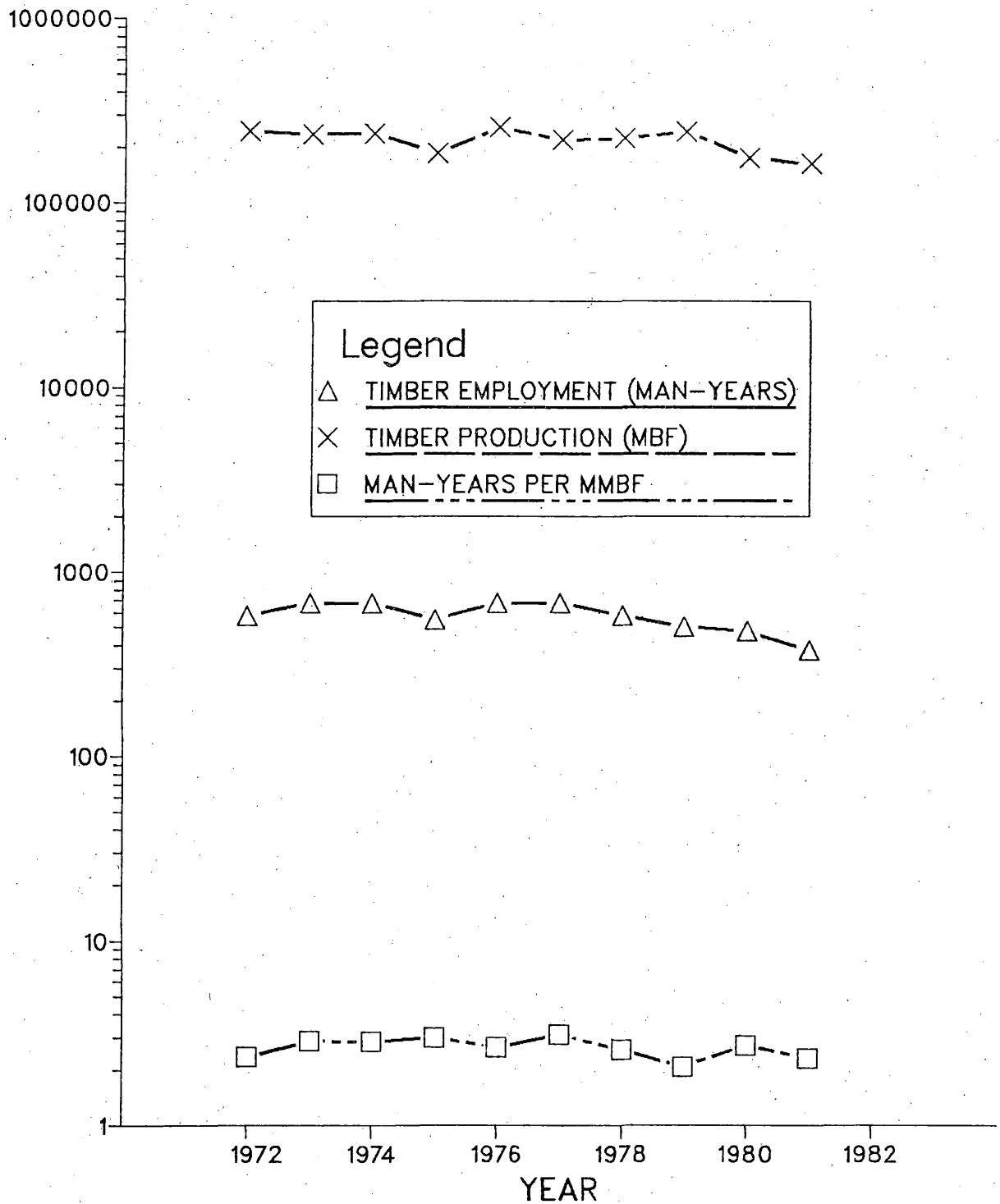
TIMBER PRODUCTION AND EMPLOYMENT TEHAMA COUNTY

Y AXIS LOGARITHMIC SCALE



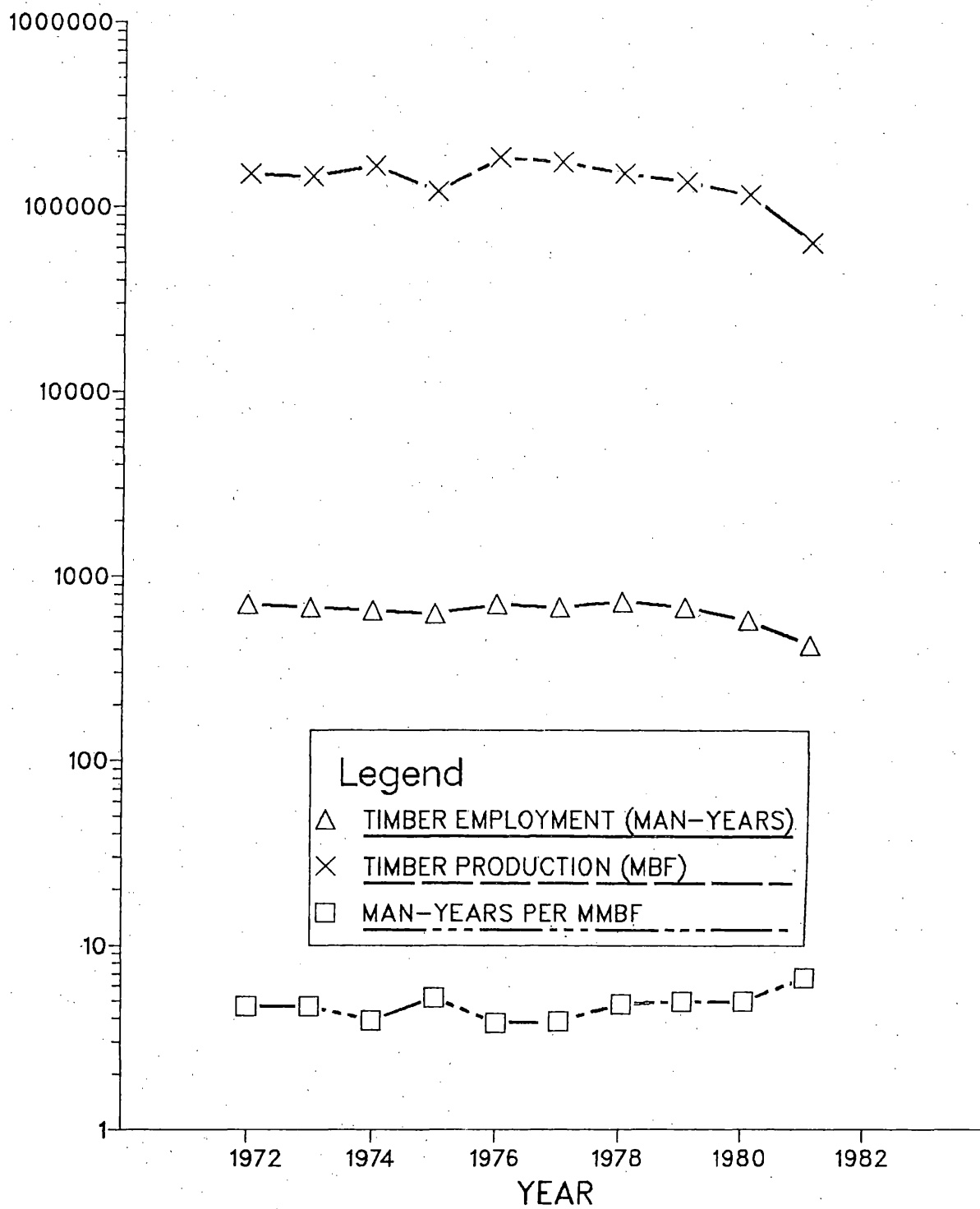
TIMBER PRODUCTION AND EMPLOYMENT TRINITY COUNTY

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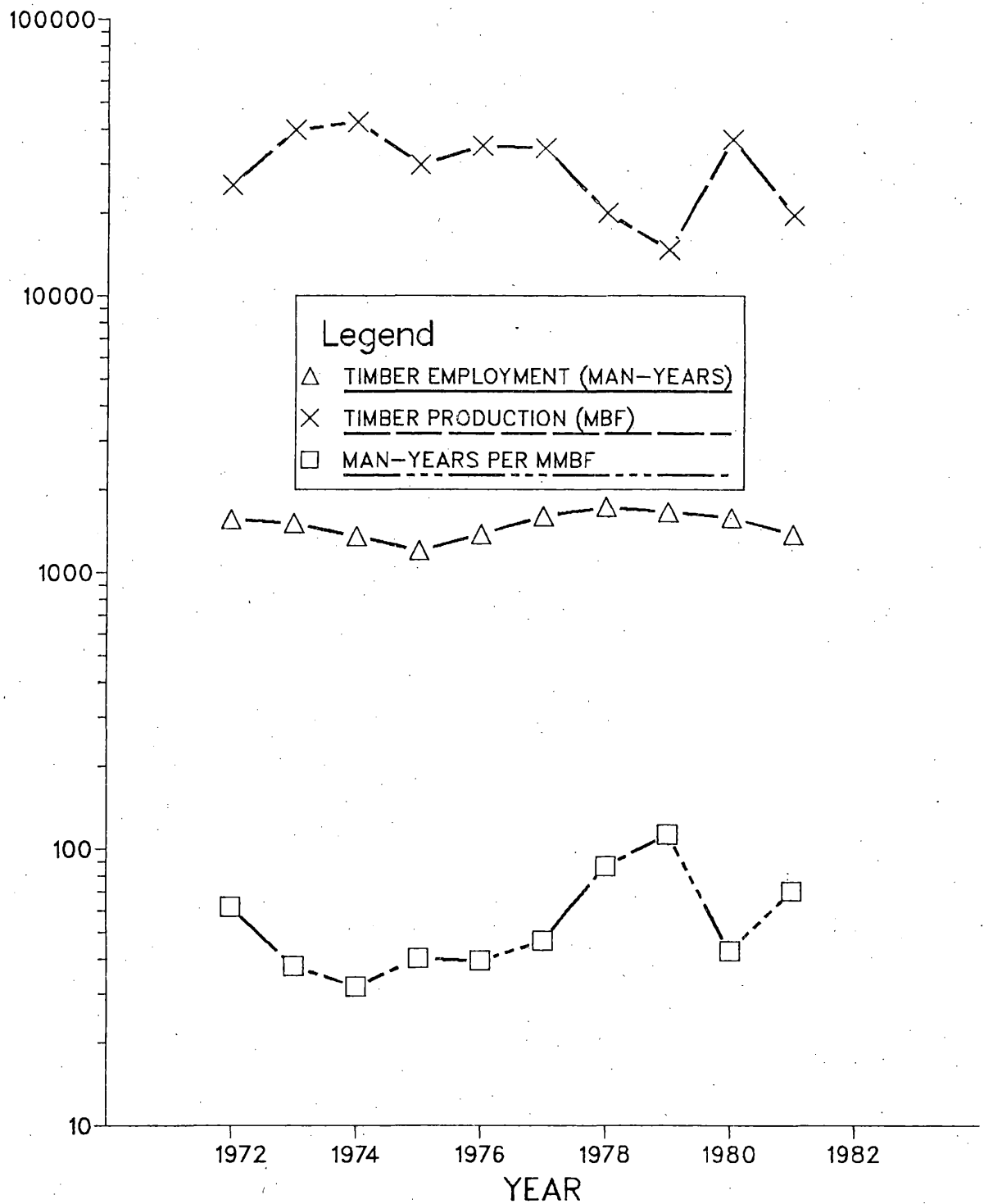
TIMBER PRODUCTION AND EMPLOYMENT TUOLUMNE COUNTY

Y AXIS LOGARITHMIC SCALE



TIMBER PRODUCTION AND EMPLOYMENT YUBA COUNTY

Y AXIS LOGARITHMIC SCALE



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